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Editorials

- 20 years of Academic Medical Congress of Piauí!
- Medicalis – International Congress for Medical Students and Young Health Professionals
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- 6th International Student Medical Congress in Košice, Slovak Republic, ISMCK
- 32nd National Medical Students' Conference, Spain, CNEM





INTERNATIONAL JOURNAL *of* MEDICAL STUDENTS

International Journal of Medical Students

The *International Journal of Medical Students* (IJMS), is a peer-reviewed open-access Journal, created to share the scientific production and experiences of medical students worldwide.



Schisto SXie1

Sand Art. Scene from "Neglected: A Story of Schistosomiasis Infection in Ghana"
By Shelly Xie (with authorization).

1st Year Medical Student, University of Texas Southwestern Medical Center, Dallas, TX, USA
Email: shelly.xie@utsouthwestern.edu

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20 years of Academic Medical Congress of Piauí!

Sahamia Martins-Ribeiro.¹

The 20th Edition Academic Medical Congress of Piauí was performed during the 25 to 29 September, 2013, in Teresina - Piauí. In this year, the COMAPI had also consolidated as IV Medical Academic Congress of Brazilian Northeast, a trajectory that valorizes this scientific event, already recognized as one of the largest academic medical congress in the Northeast.

It is important to note that we live today in the COMAPI is a merit of the work of successive generations that have had great success in their organization of this event in all these 20 years. The I Academic Medical Congress of Piauí was performed in 1994 with a "scientific spirit" that began in the 90s in Medicine of Piauí. In 2010, the COMAPI crosses borders and becomes the I Medical Academic Congress of Brazilian Northeast. At the time, COMAPI's objectives were governed by an orchestra of impossible almost dreams! In this 20th edition, I can say that these dreams are today, our reality.

First of all, it is an honor and a great responsibility to represent the Organizing Committee of the XX COMAPI that

through a big effort performed another edition of this event. There were 11 months of intense work, compromise and learning, valuable for developing our enterprising spirit which was essential to plan, to choose and to make decisions to cooperate in some way with the construction of a basic knowledge to our lives as lifelong learners of science.

We are also thankful to those physicians and professors who helped us to prepare our scientific program: Anenisia Coelho de Andrade, MD, PhD, president of our scientific committee; Vitor Cortizo da Fonseca, MD, PhD, vice-president of our scientific committee; Fernando José Amorim Martins, MD, coordinator of "Pain Clinic" module; Patrícia Machado Veiga de Carvalho Mello, MD, PhD, coordinator of "Emergency" module; André Gonçalves da Silva, MD, PhD, coordinator of "Endocrinology" module; Maria do Amparo Salmite, MD, PhD, coordinator of "Infectious Disease" module; Ediwyrton de Freitas Moraes Barros, MD, MSc, coordinator of "Psychiatry" module; Evandro Leal Abreu, MD, coordinator of "Radiology". Moreover, we thank all the lecturers, especially Valentim Gentil Filho, MD, PhD, national reference in teaching and research on Mental Health.

COMAPI website
www.comapi.org



Figure 1. Sahamia Martins Ribeiro, President of the 20th Academic Medical Congress of Piauí 2013 at Opening.

¹ President of the 20th Academic Medical Congress of Piauí 2013. School of Medicine, Federal University of Piauí (UFPI), Teresina, PI, Brazil.

Correspondence

Sahamia Martins Ribeiro
Address: Campus Universitário Ministro Petrônio Portella - Bairro Ininga - Teresina - PI, Brazil.
Email: sahamia.martins@gmail.com

Certainly, every new COMAPI, students and professionals in Health will be better and will be better prepared, proud and anxious to be involved in a great and endless struggle for the improvement of Health. For all these reasons - and mostly we are investing in the greatness of principles, we strongly believe that together we can offer students a work of the highest scientific, medical and social!



Figure 2. Pictures taken during the 20th Academic Medical Congress of Piauí, COMAPI 2013, Piauí, Brazil.



Figure 3. Pictures taken during the 20th Academic Medical Congress of Piauí, COMAPI 2013, Piauí, Brazil.



Figure 4. Pictures taken during the 20th Academic Medical Congress of Piauí, COMAPI 2013, Piauí, Brazil.



Figure 5. Pictures taken during the 20th Academic Medical Congress of Piauí, COMAPI 2013, Piauí, Brazil.



Figure 6. Pictures taken during the 20th Academic Medical Congress of Piauí, COMAPI 2013, Piauí, Brazil.



Figure 7. Pictures taken during the 20th Academic Medical Congress of Piauí, COMAPI 2013, Piauí, Brazil.



Figure 8. Pictures taken during the 20th Academic Medical Congress of Piauí, COMAPI 2013, Piauí, Brazil.

Medicalis – International Congress for Medical Students and Young Health Professionals

Medicalis 2014 Team.

Medicalis – International Congress for Medical Students and Young Health Professionals or simply put Medicalis, has been at its 15th edition this year, taking place in Cluj-Napoca, between the 15th and 18th of May 2014 being organized by Medical Students' Organization of Cluj-Napoca under the aegis of "Iuliu Hatieganu" University of Medicine and Pharmacy.

Founded at the crossroads of the millenniums, in the year 2000, Medicalis started from the desire of medical students to offer their fellow colleagues the opportunity to participate at a scientific manifestation aiming their growth and progress in the wonders of medicine. Now, in 2014 we are loyal to the same objective and promote medical education as a framework of the future doctors.

Medicalis website
<http://www.medicalis.ro/>

Every year we intend to bring physicians from a great variety of medical fields in order to give participants the opportunity to take part at conferences and workshops that interest them and consist of the latest discoveries at both a national and an international level. Participants can also present their research papers in one of our four sections: Medical Sciences, Fundamental Sciences, Surgical Sciences

or Public Health or if they have come in contact with an interesting clinical case, they can present it as a poster in our Poster Session. We combine this with a lot of fun and a beautiful weekend spent in Cluj-Napoca, the heart of Transylvania and the European Capital of Youth in 2015.

Medicalis is not simply a medical congress. It is created with a lot of work, sacrifice, dedication, team work and care for the details. It is a puzzle of organic pieces, which collide into forming a state of the art event.



Figure 2. Pictures taken during the 15th Medicalis, 2014.



Figure 1. Pictures taken during the 15th Medicalis, 2014.

Correspondence

Paula Oltean, Project Coordinator
Address: "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania.
Email: paula.oltean@medicalis.ro



Figure 3. Pictures taken during 15th Medicalis, 2014.



Figure 6. Pictures taken during the 15th Medicalis, 2014.



Figure 4. Pictures taken during 15th Medicalis, 2014.



Figure 7. Pictures taken during the 15th Medicalis, 2014.



Figure 5. Pictures taken during the 15th Medicalis, 2014.

XXV Colombian Student Congress of Medical Research, CECIM, and FELSOCEM Zone C Regional Course

Savina Andrea Vergel-Tarazona.¹

The Colombian Student Congress of Medical Research (CECIM) is one of the three most important and representative events hosted by the Association of Scientific Societies of Colombian Medical Students (ASCEMCO), which gathers medical student from Colombia every year, with the aim of creating a space to present medical protocols, research work, clinical case reports, photographs and videos, carried out by students during their careers, and sets up a propitious space in order to share fruitful experiences in the research, academic, professional, and personal aspects of their lives as Colombian medical students.

From May 14th until May 17th 2014, Armenia, Quindío was the host to the twenty fifth CECIM, which its academic theme was an integral focus to HIV/AIDS, the FELSOCEM Zone C Regional Course, the National Encounter of Medical Magazine Editors, and the added-value: the 25th celebration of ASCEMCO's foundation!.the organization of this great event was a challenge that ASEIMUQ (Student Association of Medical Research of the University of Quindío) assumed, and it was carried through successfully thanks to the dedication, work, constancy, patience, compromise, and responsibility of every member that took part of the organizing committee, as well as the unconditional support of The University of Quindío, ASCEMCO, FELSOCEM, The Colombian Association of Infectology (ACIN) eje cafetero chapter, and specia-

lly Dr. Jorge Enrique Gomez Marin, scientific advisor of the congress.

Now that the congress is done, the Organizing Committee is proud to say that 321 students attended the event, as well as 5 medical student magazines, 22 masterful conferences were presented with 36 research works, 39 research protocols, 6 clinical cases, 11 medical videos and 20 medical photographs; a positive balance mainly in the research quality made by students, accomplishing the main goal of ASCEMCO, which is to reinforce, promote and foment scientific research activities in Colombian Medical Students.



Figure 2. Awards ceremony of research competition. Photo taken during the XXV Colombian Student Congress of Medical Research. Armenia, Quindío, Colombia.



Figure 1. Organizing Committee. Photo taken during the XXV Colombian Student Congress of Medical Research. Armenia, Quindío, Colombia.

¹ Director XXV Colombian Student Congress of Medical Research. Medical Student, University of Quindío, Armenia, Quindío, Colombia.

Correspondence

Savina Andrea Vergel Tarazona
Address: University of Quindío, Faculty of Medicine, Carrera 15 Calle 12 Norte, Armenia, Quindío, Colombia.
Email: Xvcecm2014@gmail.com



Figure 3. Masterful Conference about HIV/AIDS. Photo taken during the XXV Colombian Student Congress of Medical Research. Armenia, Quindío, Colombia.



Figure 4. 25th celebration of ASCEMCO foundation. Photo taken during the XXV Colombian Student Congress of Medical Research. Armenia, Quindío, Colombia.



Figure 5. Delegates of associations belonging to ASCEMCO. Photo taken during the XXV Colombian Student Congress of Medical Research. Armenia, Quindío, Colombia.

6th International Student Medical Congress in Košice, Slovak Republic, ISMCK

Eva Škanderová.¹

In 2014 about 100 students from the entire world met in Košice, Slovakia to experience three wonderful days at the 6th International Student Medical Congress in Košice (ISMCK). At the moment, ISMCK is the only international congress in both Slovakia and Czech Republic and we are very proud to be part of it.

We all know the story - medical students are usually the ones sitting behind the desk till midnight and longer; we get so overwhelmed with the amount of information available that we often forget what was the original drive to study such a demanding occupation. And in that case, there is nothing better than to remind it yourself at the medical conference! You can improve medical skills, present your scientific work, meet other students and see new and interesting places as well.

This year, our effort resulted in about 70 presentations in fields of clinical medicine, public health, basic science and PhD works. We have provided interesting workshops from fields of gynecology, cardiology, or pediatric surgery as well as trainings in communication skills and spirometry.

Our keynote speakers from Slovakia, Ukraine and Turkey brought their knowledge to our participants in three presentations. And we are glad they have accepted our invitation.

But let's move to the life behind the desk - after the presentations, our participants had a chance to get to know the city of Košice, the Slovak culture and traditions and to join our traditional trip to Tokaj region.

As every year, the congress was organized by students and young doctors. The organization committee composes of students of Medical faculty of P. J. Šafárik University in Košice - members of Association of medical students in Košice and young doctors from Edumed, n.o.

Faculty of Medicine is the oldest faculty of P. J. Šafárik University and provides 6-year General Medicine and 6-year Dentistry courses awarding the degree of Medical doctor. The faculty has rich tradition in research and offers a possibility of postgraduate study.

Association of medical students in Košice is a voluntary

ISMCK website
<http://studentcongresskošice.webnode.com/>



Figure 1. Pictures taken during the 6th International Student Medical Congress in Košice, ISMCK.

¹ Public Relation Manager, ISMCK 2014.

Correspondence

Eva Škanderová
Address: Medical Faculty of University of Pavol Josef Šafárik, SNP 1, Košice, Slovak Republic.
Email: ismck2014@gmail.com

organization of students of general medicine at P. J. Šafárik University who are interested in developing cultural, social and scientific life. Edumed is a non-profit organisation established in 2009 supporting medical students, PhD students and young doctors aiming to increase a quality of students' life.

To conclude, once you have decided to become a doctor you accepted the extraordinary path of life. Doctors' educa-

tion never ends. However, everything you will invest to your education, both professional and self-educational, will stay with you till the rest of your life.

Finally, we invite you to participate in 7th edition of ISMCK, which will take place in Košice in June 2015!

We are looking forward to meeting you there!



Figure 2. Pictures taken during the 6th International Student Medical Congress in Košice, ISMCK.



Figure 5. Pictures taken during the 6th International Student Medical Congress in Košice, ISMCK.



Figure 3. Pictures taken during the 6th International Student Medical Congress in Košice, ISMCK.



Figure 6. Pictures taken during the 6th International Student Medical Congress in Košice, ISMCK.



Figure 4. Pictures taken during the 6th International Student Medical Congress in Košice, ISMCK.

32nd National Medical Students' Conference, Spain, CNEM

Francisco J. Pelegrín-Mateo, Alejandra Varó-Seva, Alba Herrero-Brocal.¹

It is said that 'any past time was better'. And although maybe that is true in certain things in life, when it comes to our National and International Medical Students Conference, we dissent. Two reasons allow us to make such statement: the constant tendency to improve this event in recent years, reflected in the growing number of participants, quality and number of works made each edition exceeds the above; and, secondly, because the illusion, renewed with each Committee and added to the experience accumulated in previous editions. Thus, new ideas solve old problems, and it manifests constant improvement inherent in medical profession. Since its conception in 1983 as a mini-conference on Pharmacological Therapeutics to the National and International Congress celebrated nowadays our development has been exponential.

CNEM website
<http://cnem.umh.es/>

The 32nd National Medical Students Conference (CNEM) is a meeting held by the students of the Miguel Hernández University of Elche, Spain, for health science related undergraduates. Its 32nd national and 10th international edition took place in the city of Alicante on October 15-17, 2014.

As it has become tradition, the 6th-year medical students of our university lead the management of the CNEM. Through all these years our main object has been to share knowledge with medical students. For that purpose, the CNEM offers a wide variety of sources: from oral communications to scientific posters. The issues' conferences consisted on

oncology, pediatrics, infectious diseases, endocrinology, general surgery, gynecology and urology. As it has become also usual the past years, the CNEM collaborates with the CSIC-Neuroscience Institute. An agreement that permits students to enroll in projects related to such area of medicine, mentored by a professional from the Institute.

One of the aspects the organizers have tried to improve along these years has been practical work. With the lack of clinical practice accessible to students considered, we have emphasized our medical workshops offer. On this edition, our assistants could attend to workshops on 'surgical skills', 'laparoscopy', '3D neuroanatomy' and 'emergency medicine' among others.

Additional talks were organized in symposiums developed by different companies. The subjects presented were 'assisted reproduction', 'child and adolescent obesity', 'visual pathology and its rehabilitation', 'neurotechnology', 'military medical training' and 'international cooperation'.

This edition has been well known for the conferences held by recognized professionals as well as the relevancy of the issues discussed. 'Multiple sclerosis', 'intrauterine fetal therapy', 'palliative care versus euthanasia', 'medical salaries', 'gender dysphoria' and 'reenerative medicine' were some examples of the fields we have focused on this edition with the inestimable assistance of the experts consulted.



Figure 1. Pictures taken during the 32nd National Medical Students' Conference, CNEM

¹ Scientific Committee Chiefs, CNEM 2014.

Correspondence

Francisco J. Pelegrín Mateo
Address: Universidad Miguel Hernández de Elche, Alicante, Spain.
Email: fpelegrin@aol.com

The opening conference titled 'Unleashing forces in health' and held by Rafael Bengoa MD was an exceptional illustration of the forthcoming future on what medical professionals are developing their practices. While the closing conference held by Jorge Cerezal MD, showed our attendants the state-of-the-art technology for surgeons in the approach of lung cancer.

Special mention requires the conference about the Ebola virus. In the very beginning of the Ebola outbreak, the CNEM made an effort against time to set a Round Table with

professionals from several universities as well as previous formers of the Spanish government. On this meeting, controversial aspects like causes, management of the crisis or measurements were talked on, and our students had the chance to discuss in public about that matter.

We would not like to end this editorial without inviting all the medical students community to join the following editions of our Congress. Here you will find the right place to take a step forward on your learning.



Figure 2. Pictures taken during the 32nd National Medical Students' Conference, CNEM.



Figure 5. Pictures taken during the 32nd National Medical Students' Conference, CNEM.



Figure 3. Pictures taken during the 32nd National Medical Students' Conference, CNEM.



Figure 6. Pictures taken during the 32nd National Medical Students' Conference, CNEM.

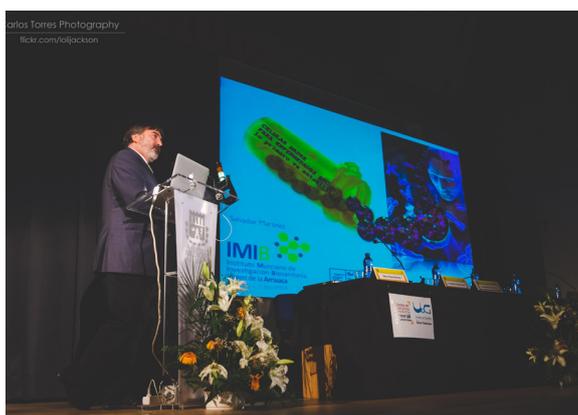


Figure 4. Pictures taken during the 32nd National Medical Students' Conference, CNEM.



Figure 7. Pictures taken during the 32nd National Medical Students' Conference, CNEM.

Abstracts of the 20th Academic Medical Congress of Piauí, Brazil, COMAPI 2013

ORAL Presentations

01 Evaluation of Corneal Deposits Performed by BTOC - HGV and Indications for Corneal Transplant During the Period Between 2008 and 2011.

Eduardo Carvalho De Melo, Virgínia Lúcia Bezerra, Renan Bastos Leite, Namir Clementino Santos

Introduction: The cornea transplant is the most successful procedure among transplants in humans and is one of the most performed in the world. The good quality of the donated cornea and proper conservation of it to its use are very important for a successful surgery and a good visual prognosis. The evaluation of the cornea in the eye banks is important for the surgeon and patient can rely with a good fabric and also to minimize postoperative complications. Previous studies in other eye banks indicate a relationship between the quality of donated corneas and factors such as donor's age, time of enucleation and time of tissue preservation. **Objectives:** Define the profile of corneal donations obtained by Ocular Tissue Bank, Getúlio Vargas Hospital (BTOC-HGV), evaluate the quality of the tissue captured and enumerate the main indications for corneal transplantation. This is the first survey data of this eye bank since its opening. So, this is very important to our own evaluation and knowledge. **Methods:** Retrospective study of the records of registered donors in BTOC-HGV during the period between 2008 and 2011. Some data were collected such as age, gender and cause of donor's death, enucleation time, preservation time, quality of donated cornea, causes of discards and indications for corneal transplant. **Results:** 311 records of donor cornea in BTOC-HGV were analysed. The number of donations increased from 9 in 2008 to 80 in 2009, 109 in 2010 and 113 in 2011. Most donors were male. The average age of the donors was 43.00 ± 16.01 years. The majority of transplanted corneas (78.6%) was optics. 7.16% of corneal optics were discarded, mostly by new classification in tectonic and detection of positive serology. The time of enucleation was 3.77 ± 2.18 hours and the time of preservation was 6.86 ± 6.10 hours. When we consider the cause of death, the most frequent were external causes, followed by diseases of the circulatory, respiratory, digestive and genitourinary systems. The main indication for transplantation was bullous keratopathy, followed by keratoconus and corneal perforation. **Conclusion:** This study demonstrated the association between the quality of corneas by BTOC and factors such as age, time between enucleation and preservation and cause of death. The main indication for transplantation was bullous keratopathy.

02 Satisfaction of Users Treated in a School Clinic of a Private Institution from Teresina / PI.

Raquel Vilanova Araujo, Layse Christina Batista de Freitas, Ednólia Lopes da Silva, Ednando Pereira da Silva, Regina Célia Vilanova Campelo, Viriato Campelo.

Introduction: Treatment success in patient care is generally assessed by clinical measures, questionnaires and other instruments that are widely used by physiotherapists to measure the health condition of the patient or the results of the treatment. Patient satisfaction is also one of the dimensions involved in the care of individuals, which is poorly evaluated and it is connected synergistically to the technical quality with regard to successful treatment. **Objectives:** To analyze the user's satisfaction with the service offered by Physiotherapy students of a private Higher Educational Institution in Teresina-PI. **Methods:** This is a quantitative study, performed by students of Physiotherapy of a Private College from Teresina. The research was conducted with thirty individuals attended by students and agreed to participate after signing the consent and approval of

the research by Municipal Foundation of Health-MFH and the ethics committee of the Faculdade Santo Agostinho-FSA. We used a structured script with questions about the variables related to satisfaction of care, based on validated study conducted by Mendonça (2007). The questionnaire was administered to individuals after they have been attended by students. **Results:** The variables evaluated were: explanations offered with clarity, respect and interest, clarification of doubts, attention given to complaints, skills, and techniques and procedures. As for explanations, safety, respect and attention to the complaints degrees of satisfaction was good to excellent. As for the technical clarification and was good to great. **Conclusion:** We can see the importance of the provision of physiotherapy services to the community, which is seen as an opportunity to refine the techniques and skills of students as well as to offer the community quality service. Therefore it is necessary to conduct studies regarding the assessment of user satisfaction regarding the care provided by healthcare clinics in schools, aiming to offer a therapeutic of excellence to these individuals.

03 Sensitivity to Airborne Fungi in Patients with Asthma and Rhinitis/Sinusitis of a Health Facility in São Luís - MA.

Geusa Felipa de Barros Bezerra, Marcos Antonio Custódio Neto da Silva, Rebeca Costa Castelo Branco, Crislaine Andrade Borges, Graça Maria de Castro Viana, Maria do Desterro Soares Brandão Nascimento.

Introduction: Respiratory allergies are more and more frequent, especially in relation to studies of asthma and rhinitis. It is estimated that 20-30% of the world population is affected. The allergic reactions are caused by the production of IgE antibodies specific to inhaled allergens, such as fungi in the air. These are widely found in Brazil, where the humidity is high. The diagnosis of allergies is performed with clinical history, physical examination, and investigation of IgE specific to allergens. **Objectives:** To analyze the IgE serum concentrations specific to airborne fungi in patients with clinical diagnosis of asthma and rhinitis/sinusitis. **Methods:** One has studied 158 patients enrolled in the Program of Support for Asthmatic Patient (PAPA) of HUUFMA, and 20 controls, from the Unified Health System Network (SUS) of São Luís - MA. Clinical data for the period of 2007 to 2008 have been surveyed through protocol form. The Enzyme Linked Immunoabsorbent Assay (ELISA) test has been used to quantify the levels of total IgE and IgE specific to airborne fungi. A pool of isolated species of generic fungi was transformed into an inert extract and served as sensitizing antigens of the ELISA plates. Statistical analysis has been performed with the aid of computer program Stata/SE 9.0 for Windows (Stata Corporation, College Station, Texas, USA). Categorical variables were presented as absolute value, and percentage and numeric variables were represented as mean and standard deviation. The research was submitted and approved by the Ethics Committee in Research of HUUFMA under consolidated report N.º. 406/06. **Results:** One has studied 158 patients diagnosed with asthma, being that 71 of these patients had, simultaneously, rhinitis, and 32, sinusitis. There was a female predominance (120/158; 75.9%) and of residents of urban areas (112/158; 70.9%). The main symptoms reported were dyspnea, cough, wheezing, and nasal obstruction. There was a statistically significant relationship between dyspnea and seropositivity to *Fusarium* ($p = 0.01$) and *Penicillium* ($p = 0.005$), and between cough and seropositivity to *Aspergillus* ($p = 0.007$). There was a greater sensitivity to fungi among the cases, with a statistically significant difference. The seropositivity for anti-*Penicillium* IgE in the individuals studied was the highest. The seropositives for IgE specific to allergens related to 4 kinds of fungi were predominantly in the Eastern Zone of São Luís - MA. Most patients had persistent, moderate asthma on a controlled level. Rhinitis and sinusitis were

present in 44.9% and 20.2% of patients, respectively. **Conclusion:** The seropositivity for anti-Penicillium IgE (79.7%) and anti-Fusarium IgE (77.8%) in individuals with asthma and rhinitis/sinusitis were the most significant. Sensitivity to fungi was higher in symptomatic individuals. The identification of environmental allergens is essential for the diagnosis of respiratory allergy.

04 Comparative Analysis of Medical Care Provided in a Clinic School (Cis Uninovafapi) and an Integrated Health Centre Hall (Cisla) in View of Patient.

Rafaella Mousinho De Sá, Brenda Machado Pereira, Karolyne Nava Hossoe, Lucas Henrique Porfirio Moura, Joao Luiz Ribeiro Vieira.

Introduction: The essential requirements for quality medical care are: qualified medical staff, anamnesis and physical examination and good physical structure. Moreover, a good doctor-patient relationship (DPR) is vital in promoting a quality care for the patient quit satisfied of your query. **Objectives:** To compare the quality of medical care provided in Conventional Clinical and Clinical School, even as the doctor - patient relationship (DPR), from the viewpoint of patients. **Methods:** A descriptive - analytical study. A survey was applied to 100 (one hundred) patients in the months from January to May 2013, half of these were attended by physicians in a Health Centre of Reference (Conventional Clinical) and the other half by medical students accompanied by a preceptor physician in the Integrated Health Center - IHC/UNINOVAFAPI (Clinical School) . Were excluded patients under 18 years old, with altered state of consciousness, mentally disabled, unable to communicate verbally or didn't agree to participate in the study. This study was approved by the Committee Research Ethics CRE/UNINOVAFAPI (Protocol No. 68897). **Results:** The attendance at the Clinical School takes on average 18.6 minutes, while at the Clinic Conventional lasted 8.8 minutes. While 31 patients (62%) of the Conventional Clinic considered their problem is not resolved, 47 (94%) of patients in the Clinical School claimed to have solved their complaint. No patients had their blood pressure measured in the clinic Conventional, while at the Clinical School 38 (76%) underwent this exam. About the physical examination: 20 (40%) of patients treated only by physicians reported that they weren't examined, while all patients treated at the CIS/UNINOVAFAPI were examined. When assessing the attendance and DPR, patients gave average grade of 7.44 and 8.08 for Conventional Clinical and Clinical School, respectively. Regarding communication and active listening, 26 patients (52%) responded that the doctor gave him space and encouraged to take your questions and afflictions related to your problem at the Conventional Clinical, whereas those treated in CIS/UNINOVAFAPI, 43 (86%) patients made this affirmation. **Conclusion:** The care provided by medical students accompanied by a teacher was considered best for the majority of patients treated, compared with the care provided by physicians.

05 Effect of Oil Resin *Copaifera Multijuga* on Gastric Secretion in Rats Submitted to Pylorus Ligation.

Caroline Cristina Braga Castro, Alana Moura Fé E Silva, Bárbara Larissa Santana Coelho De Oliveira, Raquel De Moraes Santos, Vitor Assunção Da Ponte Lopes, Maria Do Carmo De Carvalho E Martins.

Introduction: The oil-resin *Copaifera multijuga* presents antiulcerogenic effect in an experimental model of gastric ulcers induced by ethanol, but the gastroprotective mechanism has not been clarified. **Objectives:** To evaluate the effect of oil-resin *Copaifera multijuga* (Cm) on the acid secretion and mucus content in the gastric wall of rats subjected to pylorus ligation (LP). **Methods:** Wistar rats (193-316 g) underwent LP were distributed in groups of 6-8 animals for intraduodenal administration of 1% Tween-80 (5 mL / kg-T) and Cm 200 mg / kg (CM200) and Ranitidine 60 mg / kg (R). Four hours after treatment, the animals were sacrificed and the gastric contents were collected for determination of volume, pH and titratable acidity. Fragments of the stomach were obtained for quantification of gastric wall mucus. Data were analyzed by ANOVA and Tukey test. Project approved by the Ethics Committee in Research of the University Cen-

ter UNINOVAFAPI (no. 0017/2012). **Results:** There were no significant differences between the groups in relation to the content of mucus (T: 346.29 ± 50.48; CM200: 268.69 ± 24.8, R: 279.79 ± 18.5). The volume of gastric juice was significantly higher (p <0.05) in CM200 (3.2875 ± 0.11) when compared to R (2.64 ± 0.16) but not compared to T (2.68 ± 0.26). The acidity was significantly higher (p <0.05) in CM200 (13.62 ± 3.48) compared to R (3.75 ± 0.76) but was not different than T (6.37 ± 2.9). The pH was higher (p <0.001) R(4.67 ± 0.35) when compared to CM200 (2.4 ± 0.18) but not compared to T (3.31 ± 0.63). **Conclusion:** The gastroprotective effect of oil-resin Cm seems not to involve increase in mucus production or decreased gastric acid secretion.

06 Epidemiological Aspects of Tegumentary American Leishmaniasis in the State of Piauí from 2007 To 2012.

Danilo Gonçalves Dantas, Aldemes Barroso da Silva, Danilo Rodrigues de Sousa, Karine dos Santos C. M Portugal, Cintia Maria de M.Mendes e Daiana Clara B. de S. Brandão.

Introduction: The tegumentary American leishmaniasis is an infectious disease, not contagious, caused by protozoa of the genus Leishmania, with vertical transmission, which affects the skin and mucous membranes. It is a zoonosis in clearly geographical expansion in Brazil and it reported autochthonous cases in all federal units of Brazil in 2003. The northeast region of the country is the second in number of cases, only behind North. **Objectives:** To analyze the epidemiological characteristics of cases of tegumentary American leishmaniasis in the state of Piauí occurred from 2007 to 2012. **Methods:** This is a descriptive, quantitative, and retrospective study based on booked data through mathematical calculations performed on Microsoft Excel 2010, after a survey in the national notifiable complaints related to tegumentary American leishmaniasis reported in the state of Piauí from 2007 to 2012. It was considered the variables: sex, age, clinical form and evolution of the disease. **Results:** For the period studied, there were 944 reported cases of Tegumentary American leishmaniasis in the State of Piauí, with the highest incidence in 2011 and the lowest in 2008. Analyzing the sex, the majority of people with the disease are male. The most prevalent age group was composed of adults from 20 to 59 years and corresponds to 61.5% of all cases of the disease. With respect to the clinical form of the disease, the cutaneous form was recorded in 87.5% of all cases. The mucosal form occurred in only 10.2% of all cases and a small number of cases (2.3%) showed no clinical classification. Most cases progressed to healing (59%) and there were no deaths from cutaneous leishmaniasis recorded in the time frame examined. **Conclusion:** In the period studied, it was found the highest prevalence of American cutaneous leishmaniasis (ACL) in males, aged 20-59 years in the clinical cutaneous form and evolution to healing. Given the therapeutic difficulties and serious consequences that tegumentary American leishmaniasis can result, is of unique importance the execution of preventive actions and effective epidemiological surveillance.

07 Statistical Correlations For Occupational Exposure And Family History As Risk Factors For The Breast Cancer.

Mayara Amorim Pereira, Marcus Vinícius Oliveira Barros de Alencar, Antonio Luiz Gomes Júnior, Ana Amélia de Carvalho Melo Cavalcante.

Introduction: The breast cancer is the most common and impactful neoplasm for mortality and morbidity in women. Exposures to mutagens, carcinogens and lifestyle are considered risk factors. Epidemiological studies indicate that besides these factors, the occupational exposure and the genetic predisposition are relevant for the etiology of the breast cancer. **Objectives:** The study evaluated the possible statistics correlation for occupational exposure and family history in patients with the breast cancer. **Methods:** A descriptive epidemiological study made at São Marcos Hospital (2012), based on survey of encliridions and search applied with 108 patients. This study was approved by the Ethics Committee in Research of UNINOVAFAPI (0408.0.043.000-11). The variables related to the risk factors were correlated with statistic of Spearman's on software SPSS Statistics version 20.0. **Results:** The average age

of patients was 55 years, mestizo, and mostly, with incomplete primary education. About the occupational exposure, approximately 40% of patients are housewives and 45% are exposed to chemicals. 46.6% of the patients said that have a history of cancer in their family. Significant and positive correlations were found between age versus family history, age versus time and type of job, type of job versus cancer, type of job versus exposure to chemicals; metastasis versus family history. **Conclusion:** The family history and the occupational exposure to chemicals with mutagenic and carcinogenic actions are etiological agents for the breast cancer. Epidemiological studies should continue to be carried out, the monitoring is an alternative for the prevention of the breast cancer. Preventive actions must be taken at the workplace of housewives in order to reducing the risk of malignant mammary tumors.

08 Evaluation of Laparoscopic Partial Nephrectomy in Treatment of Renal Cell Carcinoma and Analysis of R.E.N.A.L Nephrometric Score.

Michele Frasso Viana, Pedro Victor Martins Vasconcelos, Karoline Frasso Viana, Hamilton De Sousa Mourão, Wildson Moura Gonçalves, Aurus Dourado Meneses.

Introduction: The partial nephrectomy (PN) for treatment of stage T1 renal tumors is the method of choice, when feasible. The execution of this surgery by videolaparoscopy earns more and more space and acceptance, but is still exclusive to few services in Brazil. Willing to quantify the anatomic characteristics necessary for choosing PN, Kutikov and Uzzo came up with the R.E.N.A.L. Nephrometric Score, which tries to predict surgical difficulty and transoperative and post-operative complications. **Objectives:** To describe a case series of Laparoscopic Partial Nephrectomy (LPN) and analyze its surgical results correlating them with the R.E.N.A.L. Nephrometric Score. **Methods:** The case series comprises eleven patients submitted to LPN between August 2012 and May 2013, in two centers of Teresina, Piauí, who underwent surgery by the same medical team. Clinical and pathological data and surgical results were evaluated. Groups were stratified according to the R.E.N.A.L. nephrometric Score and a comparison correlating warm ischemia time and complications was made. The patients were followed for $7 \pm 3,34$ months. **Results:** The average age of the patients was 56,64 years old (between 34-76 years old); male gender was 81,8%; right kidney 63,6%. After separating patients according to R.E.N.A.L score, 36,6% of cases was classified as Class I (low risk), while 63,64% was classified as Class II (medium risk). Most common histological type found was clear cells (36,36%). Tumors staging showed predominance (63,64%) T1N0M0, followed by 18,18% of T1AN0M0. The average tumors' size was $2,93 \pm 1,3$ cm (radius 1,1-5 cm). Average surgical time was $150 \pm 35,8$ min, and hospitalization $54,27 \pm 16,7$ hours. Average bleeding volume was $125,45 \pm 77,5$ mL. Margins free of tumor in all cases. There were no post-operating complications. Finally, there was no correlation between RENAL nephrometric score and ischemia time, bleeding and complications. **Conclusion:** LPN showed to be a safe and efficient alternative to treat renal tumors. The reduced ischemia time, bleeding volume and hospitalization time showed favorable conditions to the procedure, however the RENAL nephrometric score did not demonstrate correlation with ischemia time, bleeding or complications in the present study.

09 Transperitoneal Laparoscopic Adrenalectomy in a Morbidly Obese Patient with Cushing Syndrome.

Michele Frasso Viana, Sahâmia Martins Ribeiro, Vitor Nunes Santos, Brenno Ivo Soares Santos, Ricardo Leal Dos Santos Barros, Aurus Dourado Meneses.

Introduction: The laparoscopic adrenalectomy has been used, since its first describe, as the standard treatment for the most of benign adrenal tumors and for some malignant. Factors such as the gland retroperitoneal position and its size make the laparoscopic procedure simpler and safer than the laparotomic approach and disclose less morbidity, period of hospitalization and of recovery. Obesity is described in literature as a risk factor for intra

and postoperative complications and greater converting index for conventional surgery. We present a case in which a morbidly obese patient (BMI = 50,87) was undergone to laparoscopic remove of adrenal due to a functional adenoma in Cushing Syndrome. She did not present intra or postoperative complications. **The Case:** ACCS, female patient, 40 years, morbidly obese (BMI = 50,87), hypertensive in pre-operative evaluation for bariatric surgery, was identified with a solid nodular lesion. It was characterized as well delimited, with regular contours, localized in right adrenal, with low attenuation coefficient (lower than 10 H.U.) area, with contrast enhancement and measuring 3,5cm in its larger diameter. On physical examination, she presented with violet streaks, facial plethora. Laboratorial exams disclosure ACTH<5,0, urinary cortisol = 80ug/dL, serum cortisol after dexamethasone = 110ug/dL. The patient underwent a transperitoneal laparoscopic adrenalectomy, during 110 minutes, with estimate bleeding of 30ml, and period of hospitalization of 48 hours. RBC after surgery 12,1; Creatinine post-operative: 0,9. It has been used hydrocortisone 100mg/8hrs, during the surgery and after 8 months of follow-up, the patient is using prednisone 10mg/day with clinical improvement of the violet streaks and lost of weight, about 10 kg. **Conclusion:** Laparoscopic adrenalectomy is a safe and efficient alternative, even in morbidly obese patients although this group shows increased rate of trans and post-operating complications described on the literature.

10 Biochemical and Histopathological Analysis in Liver of *Rattus norvegicus* Treated with *Morinda citrifolia*.

Gervásio Ramos de Aguiar, Marciana Gomes Sandes, Marina Braga Rodrigues Correia, Rodrigo Mendes de Carvalho, Germano Pinho de Moraes, Ana Amélia de Carvalho Melo Cavalcante.

Introduction: Noni belongs to *Rubiaceae* family. There are reports about the use of this plant by Polynesians for thousands of years, for the cancer treatment, diabetes and hypertension. The liver is important for homeostasis, where it is usual site of attack, because metabolizes ingested toxins and it produces enzymes capable to act in the biotransformation of substances to remove them from the body. The presence of liver disease can be confirmed from biochemical and histopathological findings. **Objectives:** To analyze, the liver of *Rattus norvegicus* treated with *Morinda citrifolia*, from biochemical and histopathological tests. **Methods:** Animals were distributed into experimental groups (n = 10), 5 males and 5 females: positive control (25 mg/kg cyclophosphamide, ip) and 3 doses of noni extract (10 mg / kg, 5 mg/kg, 2.5 mg/kg). After 15 days of treatment, animals were anesthetized, blood samples were collected for biochemical tests (glutamic oxaloacetic transaminase, aspartate aminotransferase, glutamic pyruvic transaminase, SGPT, alkaline phosphatase, AP, DL - lactate dehydrogenase, gamma-GT GGT), and liver samples for histopathological analysis. **Results:** Noni was hepatotoxic, at the highest dose, there was a significant increase in AST and ALT in both genders, and GGT increased significantly only in males, compared to the negative control. Similarly, enzymatic dosages of AF and DL corroborate the previous observed result in the highest dose. It caused an increase in all biochemical parameters, without sex distinction in the positive control. There was a significant increase in biochemical values of SGOT, SGPT for the two highest doses and FA at the highest dose and no significant increase of GGT in all groups when the negative control worked. There were no cellular changes in the negative control group; males dose 5 mg/kg and females' dose 2.5 mg/kg. This way, Histopathological changes occurred in both sexes at the highest dose, which cells were with inflammatory infiltrate, apoptosis, necrosis and cell tumescent. **Conclusion:** Most studies reviewed in the scientific literature confirm the results found in this study. However, there are studies that disagree on the *M. citrifolia* toxicity to the body. The ingestion of Noni aqueous extract caused microscopic and enzymatic changes in rat liver, for the doses tested. So, it highlights the need for public health programs to guide the people about the consumption of this plant.

11 Frequency of Endometriosis in Abdominal Gynecologic Surgeries.
Renata De Souza Mesquita, Michelle Chintia Rodrigues De Sousa.

Introduction: Endometriosis is a condition that mainly affects women of reproductive age and is characterized by implants of endometrial tissue outside the uterine cavity. It is a chronic disease, often associated with high morbidity, such as severe pain conditions and infertility, affecting globally the quality of life of the carriers. One should provide all the resources to improve the quality of life of these women. A multidisciplinary team should be involved in an attempt to provide a treatment able to cover all biopsychosocial aspects that endometriosis involves. **Objectives:** To identify the frequency of endometriosis in abdominal gynecologic surgery; check the frequency in which the lesions of endometriosis were found in surgeries with previous suspect of this pathology and also the frequency in which this finding was casual; identify the clinical profile and the average age of the carriers of the pathology. **Methods:** The study had a quantitative, retrospective and observational character. It was reviewed a total of 1344 records relating to patients treated between January, 2005 and December, 2009, which was recorded the following variables: histopathological diagnosis, surgery, surgical indication, clinical status and age. **Results:** The frequency of endometriosis in abdominal surgery was 3.72%, affecting mainly women in reproductive age (96% of cases). The mean age of patients was 38.5 years. About 80% of cases had either clinical or ultrasonographical hypothesis of this pathology before surgery. In 20% of the remaining cases, the finding was occasional. The most common symptoms were dysmenorrhea and chronic pelvic pain (present in 70% and 46%, respectively). In 86% of cases, endometriosis occurred in association with other gynecological disorders. **Conclusion:** The occurrence of endometriosis in abdominal gynecologic surgery is infrequent; is a disease of young women, but is often diagnosed late; painful symptoms are the most frequent, followed by menstrual abnormalities; in most cases there hypothesis of the disease before surgery; endometriosis rarely occurs as a unique illness, being commonly accompanied by other diseases of the genital tract, which must be an indication to the physician to remain alert to this possibility.

12 Phytobezoar After Bariatric Surgery – Case Report.
Gustavo Santos Sousa, Ana Cristina Carvalho Brandão Alexandrino, Géssica Kelly De Sousa Andrade, Ricardo Lira Araújo, Ylara Liza Porto De Carvalho, Gustavo Santos Sousa.

Introduction: Concretions of fibers and other vegetal derivatives in the lumen of the digestive tract causing occlusive and/or functional disorders are denominated phytobezoars. They are causers of intestinal occlusion and their predisposing factors include previous gastric surgery, inadequate chewing and psychiatric disorders. **The Case:** Female patient presented in the gastroenterology office with acute picture of very intense abdominal colic pain, nausea, vomiting, fullness and abdominal distension. She informed previous history of Roux-en-Y gastric bypass bariatric surgery nine years ago. The radiological routine for acute abdomen showed scaled air-fluid levels, mainly in the proximal small intestine. The abdominal ultrasonography revealed marked bowel gaseous distension. Underwent urgency exploratory laparotomy which showed intestinal obstruction by phytobezoar, resolved with enterotomy. In further investigation, the patient confirmed that she had ingested tangerine segments including the bagasse of the fruit. In the postoperative, she evolved with no complications and is asymptomatic ever since. **Conclusion:** In the present case, the previous gastric surgery was the predisposing factor to the formation of the phytobezoar and of the intestinal obstruction. Other therapeutic options like milking of the bezoar or enterectomy are also described in the literature.

13 Hirschsprung's Disease Associated to Down's Syndrome and Hypothyroidism: A Case Report.
Ítalo Costa Sales, Luma Carvalho e Queiroz, Érika Ferreira Reis, Carlos Henrique Rabelo Arnaud, Adolfo Batista De Sousa Moeira, Edinaldo Gonçalves de Miranda.

Introduction: Hirschsprung's Disease, also denominated congenital megacolon or aganglionosis, is distinguished by the absence of ganglionic cells in the submucosal and myenteric plexus, in

many parts of the intestine. This is connected to a migration defect that starts on the neural crests, during the fetal life. It is a congenital pathology with complex and multigenic inheritance pattern, affected by the gender. Its incidence is 1:5000 born alive and affects more commonly the male gender. Generally, it is diagnosed in neonates that presents low intestinal obstruction, with or without sepsis, associated to the following signals: failure to pass meconium in the first 48 hours of life, abdominal distension, which is relieved by rectal stimulation or enemas, vomiting and in some cases neonatal enterocolitis. Most of times, this disease occurs as an isolated defect, but can be associated to other genetics syndromes. Therefore, the present case report becomes relevant, because it aims to spread knowledge about the disease, the diagnosis and monitoring of subjects with these and other associated disorders. **The Case:** AMGS patient, born in 5/20/2011, in Parnaíba - PI. The mother refers to a report about the absence of meconium evacuation until the 5th day after the birth and increased abdominal volume. Situation in which was transferred from Parnaíba-PI for surgical evaluation. Examinations: REG, syndromic facies (hypertelorism, epicanthus folds, low-set ears). Rectal touch: explosive elimination of gases and fezes. Supplementary exams: normal ultrasonography, normal foot test, rectal biopsy showed symptoms compatible with aganglionosis, normal ecodoppler, TSH departed increased. Started to take Puran T4 25 mcg/day in 7/3/2011, progressing to daily evacuation, when it was decided to discharge and do the outpatient monitoring. Returned with abdominal distention, and in 12/17/2012 a decompression colostomy was made. After 6 months, returned to perform the lowering of the colon using the Duhamel's technique modified. Nowadays, patient is fine. **Conclusion:** In spite of the complexity of Hirschsprung's disease and its association with other syndromes, a better understanding of this disease enables the early diagnosis and treatment, resulting in improvement in the evolution of the case and increasing the life's quality.

14 Intrapancreatic Accessory Spleen: A Case Report.
Deydson Rennan Alves Soares, Sara Batista Lima, Ruggeri Bezerra Guimarães, Teresinha Castelo Branco Carvalho, Jerúsia Oliveira Ibiapina, Lina Gomes dos Santos.

Introduction: Accessory spleen is a congenital malformation that occurs in approximately 2% of individuals. The prevalence reported in the literature is 10 to 30% of autopsies and 45 to 65% of patients who underwent splenectomy. The intrapancreatic localization is the second most common, however occurs in only 16.8% of cases. The diagnosis is made primarily by imaging methods. At ultrasonography, CT and MRI are observed patterns of splenic echogenicity. However, the gold standard is marking red blood cells radionuclide (Technetium-99). When presented with multiple and varied foci called splenosis, which tends to increase after splenectomy. **The Case:** Patient 59, male, sought medical attention complaining of pain in the epigastric region, sob and postprandial fullness a year ago. Reported to have done in 1989, splenectomy and left nephrectomy due to blunt abdominal trauma. Denied history of hypertension, diabetes mellitus, and cancer in the family. An EDG showed no abnormalities. MRI showed neoplastic nodular lesion, well-defined, with regular contours, measuring 4.9 x 4.5 cm on the tail of the pancreas, being contraindicated percutaneous biopsy due to the radiological findings. So it was decided to undergo surgical treatment (body-caudal pancreatectomy). The surgical specimen had dimensions of 7.0 x 4.0 x 4.0 cm, a rough and yellowish-brown outer surface with adipose tissue adhesions. The cut surface showed nodular tumor, compact and red wine-hemorrhagic foci measuring 4.5 x 4.0 x 4.0 cm consistent with intrapancreatic accessory spleen. The patient had an uneventful postoperative and it was recommended follow-up examinations with control after one year. **Conclusion:** This case is relevant because it is a benign lesion, usually sporadic, which makes differential diagnosis with primary pancreatic lesions, especially malignant (neuroendocrine tumors, adenocarcinoma and metastases). Diagnostic imaging methods have fundamental importance for the definitive diagnosis.

- 15 **Congenital Cystic Adenomatoid Malformation of the Lung.**
Isabelle Carvalho Coelho, Liliana Silva Lopes, Ricardo Lira Araujo, Pedro Henrique Piauilino Benvindo Ferreira, Dandara Coelho Cavalcante, Roberta Oriana Assunção Lopes de Sousa

Introduction: Congenital cystic adenomatoid malformation of the lung (MAC) results from anomalous development of terminal and respiratory bronchioles, with adenomatoid proliferation and cyst formation. It is rare, the incidence of 1:35000, etiopathogenesis unknown. Manifest even as early fetuses to adults, in the form of premature stillbirths, recurrent pulmonary infections or radiological findings only. It shows a mortality rate of 25% and good performance in cases in which surgical therapy is applicable. **The Case:** P.H.R.S, masculine, vaginal delivery, at term, weight 3.850 g, APGAR 9 in the first minute and 10 in the fifth. Mother realized prenatal and pregnancy was uneventful. At birth showed tachypnea and difficulty sleeping and eating, and gagging after feedings that became worse in the supine position. The suspected of gastroesophageal reflux disease was confirmed by scintigraphy and controlled with domperidone. Congenital cardiomyopathy was discarded by echocardiography, as well as cystic fibrosis by measurement of sodium in sweat which resulted in the first sample 10.91 mEq/L and the second 11.18 mEq/L. At 9 months due fever, dry cough and chest radiograph showing radiopaque images and poorly delimited in middle and lower lobes of the right lung was performed for antibiotic therapy treatment of infectious pneumonia. At 2 years of age due to the permanence of symptoms and physical examination showed weight loss, pectus excavatum, chest indrawing, tachypnoea, decreased breath sounds on right lung base, stertors and diffuse wheezing, began treatment for asthma with salbutamol and inhaled prednisolone. Months later, sought medical assistance front new episodes of pneumonia. It was established new antibiotic therapy. The serology for HIV was not reagent and the research of immunoglobulin serum levels were normal. At age 3, front of new symptoms of pneumonia, it was requested TC that showed multiple images with thin-walled cysts and regular, loss of lung architecture accentuated in the posterior segment of the upper lobe and the superior segment of the lower lobe of the right lung, compatible with cystic adenomatous malformation. The patient was then submitted to partial pneumonectomy with substantial improvement of the symptom. **Conclusion:** The relevance of the work lies in the fact that disease is rare and not have specific clinical, it is important to be included in the differential diagnosis of recurrent pneumonia.

- 16 **Microbiological Content in a 10% Wistar Rat Faeces Suspension**
Pâmella Dayana Lopes Carrilho Machado, Maria Priscila Mendes Muniz Falcão, Juliana Garcia Carneiro, Maria Cecília Santos Cavalcanti Melo, Carlos Teixeira Brandt

Introduction: The microbiological content of faeces of rats is critical for the development of autogenous peritonitis, which is performed to simulate human secondary peritonitis. **Objectives:** To identify and quantify the microbiological content present in a 10% Wistar rat faeces suspension. **Methods:** This study was approved by the animal research Ethics Committee of the School of Medical Sciences of Campina Grande - Paraíba - Brazil, in accordance with Resolution 879/08. It was used 10 rats, from which 2g of faeces were collected and diluted in 20ml of physiological saline in order to prepare the 10% suspension. Intrapertoneal injection was performed on the rats in a volume of 6ml/kg of the suspension. A sample of each injected solution was collected to perform microbiological identification and estimate bacterial concentration in the samples. **Results:** The analysis of Gram suspensions revealed the presence of Gram-positive cocci, with no hemolysis pattern in Blood Agar medium, and Gram-negative lactose fermenters and non-lactose fermenters on MacConkey Agar. It was observed *Escherichia coli* and *Enterococcus faecalis* in all samples. *Staphylococcus aureus* colonies were found in 8 samples. The serial dilution analysis revealed a bacterial concentration of approximately 4.8×10^{-6} CFU/ml in the suspensions. **Conclusion:** The microbiological content in 10% suspension of rat faeces was predominantly formed by enterobacteria and Gram-positive cocci, a finding compatible with studies previously described in literature. Further tests will be performed to refine bacterial identification and quantification of these suspensions.

- 17 **Basilar Invagination**
Raysa Raphaela Ribeiro Lima, Tiago Bruno Almeida Sousa, Anderson Batista Rodrigues, Eldo De Brito Ferreira Chaves, Reynaldo Mendes De Carvalho Júnior.

Introduction: Drielly et al. described the basilar invagination (BI) like skeletal malformations of the cranium base with opening of angle of the anterior cranial fossa/clivus and disposition of the odontoid process above the foramen magnum. Therefore, the neck is short and functionally limited, and may coexist with other deformities cervical like intervertebral fusion. Silva highlights the BI between vertebral malformations significantly prevalent and not justified in the Northeast of Brazil. **The Case:** L.A.N., 38 years old, unmarried, housewife, born in Novo Horizonte (PI), complained in the past 10 years, severe headache, and diurnal holocranial, sometimes weight sometimes pulsatile, and spreading to the left side of the neck, particularly pungent during labor. The pain got worse in the three years prior to this report, interrupting nighttime sleep and intensifying with moving head and arms, along with rotatory and unbalanced dizziness, plus weakness and visual changes. This was described as "blurring of view" and "image flashing" concomitant with pain and dizziness. Already muscle weakness was widespread, reaching the limit daily activities. There was apathy and some mental sluggishness, with some difficulty to follow the rhythm of the dialogue. Physical examination showed suffered face and of chronic disease, webbed neck was short, deformed and curved to the left, and limited in their mobility. The erect stance was unstable, ataxic gait and broad based. There was mild dysdiadochokinesia right and moderate tetraparesis with hypertonia in all four limbs. All tendon reflexes were exaggerated, there were podalic clonus with dorsiflexion movement and presence of the Hoffmann reflex. Magnetic resonance imaging was consistent with the suspicion of BI. **Conclusion:** This record aims to recognize the presence, relatively prevalent in the adult of northeast, of hereditary-degenerative/neuro-skeletal disease causing severe disability, but possibility of surgical correction, with physical and mental relief when diagnosed and treated early.

- 18 **Kidney Injury in Patients with Left Ventricular Hypertrophy and Systemic Arterial Hypertension.**
José Vítor Mendes Sousa, Antonio Gonçalves Rodrigues Júnior.

Introduction: Kidneys and heart are closely related organs. If one does not function properly, it frequently causes alterations in the performance of the other. Such interrelation has had more and more attention, once both have high blood pressure as their main causal factor. Nowadays, chronic kidney disease is a serious public health problem worldwide. The early diagnosis of such pathology provides proper therapeutic procedures to avoid its progression, the patients' suffering and the costs related to it. **Objectives:** This study aimed to stratify the hypertensive patients with Left Ventricular Hypertrophy regarding the Glomerular Filtration Rate (GFR) determined by the Cockcroft-Gault equation and to evaluate those patients' proteinuria. **Methods:** It is a transverse observational study based on documents analysis. 44 hypertensive patients with left ventricular hypertrophy followed in an ambulatory cardiac clinic of a higher education institution in Teresina-Piauí. **Results:** It was found 13% in stage 0; 5% in stage 1; 41% in stage 2; 34% in stage 3; 7% in stage 4 and no patients in stage 5. Out of the patients analysed, 75% were found in stages 2-3 of CKD. Only 16% had urinalysis 24 hours. 47% had chronic kidney disease. **Conclusion:** The diagnosis of CKD patients who have already target organ damage in most cases is done in stages which is not allowed to recover renal function. The study highlighted the need for early detection of kidney disease in patients with LVH and optimization of suitable measures to slow its progression, reducing the suffering of patients and the financial costs associated with CKD.

- 19 **Acrolentiginous Melanoma: Case Report**
Anna Carolinne Rosal Adad, Cyléia Brandão de Almeida, Teodoro Máximo de Alencar Neto, Karolyne Nava Hossoe, Lara S. Drummond Ribeiro Gonçalves, Lauro Lourival Lopes Filho.

Introduction: Melanoma is a neoplasm arising from the malignant transformation of melanocytes, affecting mainly the cells located in the skin. The overall impact is estimated to be 132,000 cases

/ year, and there is evidence that the number of cases have increased in recent decades. Melanoma accounts for 3% of all new cancer cases, having high potential for cure when diagnosed early, and high mortality when treated late, due to its high metastatic potential. **The Case:** Female patient, 42 years old, brown, agricultural worker, literate, sought care in dermatology, Hospital Getúlio Vargas in Teresina, Piauí, complaining of purple stain on the sole of the foot. Patient complained of foul smell dark spot on his left foot, which evolved from a hyperchromic spot, about 2 years ago. He also reports having made a minor surgery at the injury site, and since then it develops with increasing size and producing secretion. Reports no family history or pathological noteworthy. Physical examination shows hyperchromic lesions, secretive and foul-smelling plant in the left foot. The diagnosis was acral lentiginoso melanoma. The patient was referred for dermatologic surgery. We performed tumor excision with a margin of safety, and healing by secondary intention. The patient returned four months later to follow, apresentando atrophic scar without signs of metastasis or adenopathy. After three months in return new, lesions were looking good, no changes or signs of lymphadenopathy. After three months of last visit, returned for follow-up, no significant changes or signs of lymphadenopathy. Returned 1 year after surgery without recurrence or metastasis. The patient should continue monitoring for a period of five years. **Conclusion:** The lentiginous melanoma or acral lentiginous is rare, affects mainly elderly blacks, and are often diagnosed at a stage of primary lesion thick, and when this occurs usually has a poor prognosis, so early diagnosis is imperative, because in initial phase is treatable and curing gets close to 100%.

20 Therapeutic Failure of Visceral Leishmaniasis in the State of Maranhão.

Marcos Antonio Custódio Neto Da Silva, Rebeca Costa Castelo Branco, Gabrielle Meirelles Rodrigues, Rodrigo Almeida Batista, Maria Do Desterro Soares Brandão Nascimento, Graça Maria De Castro Viana.

Introduction: The visceral leishmaniasis (VL) is considered a serious problem of public health, indiscriminately affecting men, women and children, and is one of the six most important infectious and parasitic diseases. The world population's risk estimate for acquiring VL reaches 182 million people, being considered endemic in 47 countries. The visceral leishmaniasis importance in the epidemiologic context is rising significantly in due of the urbanization process and the natural environment's changes. The diagnosis is realized based on clinical and epidemiologic findings and complementary tests. The antimonials compounds remain like treatment of choice and are recommended by the World Health Organization. **Objectives:** To analyze the VL's epidemiological profile in the state of Maranhão, with emphasis in treatment and the therapeutic failure. **Methods:** Retrospective and descriptive study of the diagnosed cases of VL in the state of Maranhão. The registers of the SINAN ("Sistema de Informação de Agravos de Notificação") were analyzed via the Epidemiologic Vigilance Department of the Health Secretary of the State of Maranhão between 2001 and 2013. Were analyzed: age, sex, haemorrhagic manifestations, initial drug and therapeutic failure. **Results:** In the period analyzed, were observed 5,982 human cases of VL. Considering age, 2,438 cases (40.6%) occurred in children between 1 and 4 years old. Considering sex, prevailed the male with 58.8% of the cases. The pentavalent antimony were the drug of first choice in the treatment of 90.3% of the cases, followed by amphotericin B (3.85%), liposome amphotericin B (0,71%) and pentamidine (0.25%). In this sample set, 8,5% of the cases presented therapeutic failure, and from these, 11.9% were using amphotericin B, without any reports of therapeutic failure with the use of pentavalent antimony. **Conclusion:** The visceral leishmaniasis is widely distributed in the state of Maranhão. The results show the need of improvement in the treatment of visceral leishmaniasis and the development of new drugs with low toxicity, in order to reduce the therapeutic failure and the mortality by this failure.

21 Olfactory Groove Meningioma: Case Report.

Ânderson Batista Rodrigues, Tiago Bruno Almeida Sousa, Raysa Raphaela Ribeiro Lima, Eldo De Brito Ferreira Chaves, Gilvan Vilarinho Da Silva Filho, Reynaldo Mendes De Carvalho Junior.

Introduction: Olfactory groove Meningeomas represent 8% to 18% of intracranial meningiomas. Those tumors grow in the midline of the anterior cranial fossa and moving up the frontal lobe along with the olfactory tracts and, more rarely, the optic chiasm backwards. The growth of these tumors cause disturbances by compression of the frontal lobe and olfactory tract, especially mood disorders, social irreverence and anosmia, beyond intracranial hypertension with headache and visual decline. For grow slowly, behavioral changes may be subtle and considered psychiatric illness, leading to delayed diagnosis and, thus, allowing the tumor to reach large proportions. **The Case:** M.C.S., 72 years, 10 children, born in Poção de Pedras (MA), was admitted to a public hospital in Teresina (PI) with complex psychiatric disorder, she was referred to the emergency service after fainting. Companion reported complaints related to the sense of smell three years before admission and hearing disorders later interpreted by the specialist as due to insecurity in social relationship. A year after, he began to complain of persistent headache. The mental evaluation showed depressed mood, insomnia, memory fails for names, dates and recognition of people and objects, episodes of persecutory delusions with hallucinations and confabulation, interspersed with humorous and inappropriate social behavior, beyond lack of embarrassment to evacuate and urinate in local and moment appropriate. Physical examination showed difficulty keeping up and walk, featuring motor apraxia. The imaging accused mass extrinsic to the brain parenchyma of 7.8cm in the biggest diameter under both frontal lobes. Although the tumor was completely resected, the patient died in the immediate postoperative period due to a cardiac arrhythmia episode. **Conclusion:** Subtle changes in behavior and personality in any age group, particularly in senile, including differential diagnosis in the fields of psychiatry and neurology, demanding careful clinical evaluation and professional concern with imaging on an outpatient basis.

22 Neonatal Lupus Syndrome: A Case of Autoimmunity in the Maternal Fetal Binomial.

Vítor Assunção da Ponte Lopes, Ana Clara Mourão Barreto, André Freitas Nunes, Luiza Sá e Rêgo Tupinambá, Roberta Oriana Assunção Lopes de Sousa, Catarina Fernandes Pires.

Introduction: The neonatal lupus syndrome (NLS) is a rare autoimmune disorder characterized by congenital heart block (CHB) and / or skin lesions and eventually, hematological and liver. Is associated with the presence of autoantibodies in the maternal-fetal circulation ribonucleic complexes against SSA / Ro and SSB / La. Occurs in approximately 1-2% of children of mothers with autoimmune disease, systemic lupus erythematosus (SLE) and Sjögren's syndrome and anti-SSA / Ro and anti-SSB/La. There is no specific diagnostic criteria for neonatal lupus. The diagnosis of SLN is granted when the fetus or neonate of a mother with anti SSA / Ro and / or anti SSB / La, or possibly anti RNP, develops heart block and / or typical rash, hematologic or hepatic manifestations and in the absence of other explanation. **The Case:** LVC, 28 days, cesarean delivery, PN 3285 g, height 47 cm, PC: 35 cm. Since birth, she presented erythematous photosensitive in the face and scalp. Dry skin with mild desquamation. Oral aphthous lesions. Abdomen was distended and hepatosplenomegaly. Prescribed neomycin and lotion for skin lesions and nystatin for oral lesions, without clinical improvement. Complementary tests: Test Guthrie normal, VDRL nonreactive; Hto 24.3; Hb 7.6, WBC 6800, platelets 37,000; VHS 35, creatinine 0.7. **Case Report:** LVC, 28 days, cesarean delivery, PN 3285 g, height 47 cm, PC: 35 cm. Since birth, she presented erythematous photosensitive in the face and scalp. Dry skin with mild desquamation. Oral aphthous lesions. Abdomen was distended and hepatosplenomegaly. Prescribed neomycin and lotion for skin lesions and nystatin for oral lesions, without clinical improvement. Complementary tests: Test Guthrie normal, VDRL nonreactive; Hto 24.3; Hb 7.6, WBC

6800, platelets 37,000; VHS 35, creatinine 0.7, urinalysis normal, CRP 0.8, glucose 49; AST 657; ALT 327, FA 263, Gamma-GT 233; ECG sinus tachycardia, HR 148, the electrical axis deviated to the right, small intraventricular conduction delay. Normal echocardiogram, ANA 1:640 speckled pattern, anti-SSA (Ro) reagent; nonreactive anti-RNP, anti-SSB (La) nonreactive. Mother at 30 years old, with SLE. Held 7 prenatal visits, G3P2A1, death of newborn son at 8 months. Using prednisolone 10 mg on alternate days, suspended MTX and hydroxychloroquine during pregnancy. Maternal exams: Hep2 1:640 speckled nuclear pattern; anti-SSA/Ro reagent than 240, anti-RNP reagent 210, anti-ENA panel reagent; nonreactive anti-SSB, anti-SM nonreactive. **Conclusion:** The SLN is a serious but potentially treatable. The occurrence of pregnancy in women with SSA / Ro and / or SSB / La antibodies imposes tracking this syndrome in both prenatal and neonatal. The affected infants should be treated and monitored carefully.

23 Cinca Syndrome: A Case Report.

Pedro Henrique Piauilino Benvindo Ferreira, Dandara Coelho Cavalcante, Vítor Assunção da Ponte Lopes, Luiza Sá e Rego Tupinambá, Catarina Fernandes Pires, Roberta Oriana Assunção Lopes de Sousa.

Introduction: CINCA syndrome (chronic- infantile- neurologic- cutaneous- articular) is a chronic multisystem inflammatory disease of neonatal onset, rare, characterized by intermittent daily fever, rash, uveitis, sensorineural hearing loss, articular, and central nervous system. Some cases arise from mutations in the gene *CIAS1* encoding the protein cryopyrin, important in the activation of cytokines such as IL-1 β and IL-18. The diagnosis is clinical and exclusion, having as main differential diagnoses: systemic juvenile idiopathic arthritis, hypergammaglobulinemia D and Muckle-Wells syndrome. **The Case:** VGLA, male, vaginal delivery at term, weight 2.275g. At birth presented with disseminated skin rash and fever. With 18 months left knee arthritis began. At 3 years and 11 months, audiometry showed hearing loss moderate right and severe left. Patient with good general conditions at physical examination, hydrated, eupneic, pallor ++/4+, no fever, erythematous maculopapular skin lesions diffusely. Apparatus cardiac: regular rhythm, normal heart sounds without murmur and souffles. Apparatus respiratory: physiological vesicular murmur without adventitious sounds. Hepatosplenomegaly, lymphadenopathy in the neck and groin. Rx knee: abnormal bone structure of the patella, reducing the volume and density, irregularity and fragmentation of its upper pole. Lumbar puncture: 185 cells / mm³, colorless, limpid, glucose 85, protein 53. Retinal mapping: Bilateral band keratopathy more intense in the left eye with signs of anterior uveitis, bilateral papilledema without signs of vitritis. ANF 1:320 mixed homogeneous nucleolar and cytoplasmic dotted; HSS 110, PCR 104, Hemoglobin 9:4; Hto 29.8; mucoprotein 162; ferritin 83.5; Leukocyte 18 600: 15 Bats, Segmented 59, 24 Lymphocytes, Monocytes 1. Several neutrophils with toxic granulation, amylase 37, creatinine 0.6, AST 21, ALT 18; gammaGT 29; DHL 147; EAS normal, VDRL nonreactive; rheumatoid factor negative serology for toxoplasmosis, and cytomegalovirus mononucleosis: IGG and IGM nonreactive. Fibrinogen 513; protein electrophoresis pre albumin 0.7%, 35.7% albumin, alpha₁ globulin 5.8%, 9.7% alpha₂ globulin, beta globulin 12.3%, 37.8% Gamma globulin. **Conclusion:** The rarity and scarcity of information about the disease in the literature requires attention to clinical to early diagnosis of the syndrome and thereby reduce after effects.

24 Does Scyllo-Inositol Treatment Reduce Affective Symptoms in the Tgcrnd8 App-Transgenic Mouse Model of Alzheimer's Disease?

Janine LMLJ Lopes, Pedro VM Vasconcelos, Daniel N Vilela, Mary Brown, JoAnne McLaurin, Howard TJ Mount.

Introduction: Scyllo-inositol (1,3,5/2,4,6-cyclohexanehexol) is a stereoisomer of inositol. It was shown that the drug treatment reduces β -amyloid plaque load formation and spatial memory impairment in TgCRND8 mice, a transgenic mouse model of

Alzheimer's Disease (AD), which expresses a mutant form of amyloid precursor protein (APP). Subsequent clinical trials on patients with well-established disease revealed no effects of scyllo-inositol on cognitive measures, but reductions in the occurrence and progression of neuropsychiatric symptoms, including depression and anxiety. **Objectives:** In this current study, we investigated whether scyllo-inositol might alter neuropsychiatric-like symptoms in the TgCRND8 mouse. We anticipate that should scyllo-inositol treatment improve affect in TgCRND8 mice, the model might be used to explore mechanisms underlying neuropsychiatric benefits seen in AD patients. **Methods:** The TgCRND8 mice express a double mutant (Swedish: KM670/671NL and Indiana: V717F) human APP695 transgene under control of the Syrian hamster prion gene promoter. Mice were housed individually on a 12-h light-dark cycle. Cohorts at 7 and 24 weeks of age were allowed *ad libitum* access to the drug in the drinking water (10mg/mL) for 4 weeks. Control mice received untreated drinking water. We have used multiple tests of affect to examine effects on behavior. The tests were: Suspended Zero Maze (SZM), Tail Suspension (TS), Nest Building (NB) e Marble Burying (MB). ANOVA and t-test were used to find statistical significance. After 3 days of testing, the mice were euthanized by microwave fixation for measurement of neurotransmitter tissue levels. All the tests were in accordance to the Canadian Council on Animal Care Guidelines and were approved by the Animal Care Committee at University of Toronto. **Results:** Scyllo-inositol seems to reduce anxiety in the 11 week old TgCRND8 mice in the SZM ($p=0.313$). The mice showed elevated duration of immobility during TS, which indicates depression. They also seemed aggressive and depressed, since they had an impaired nest building. But this condition can be reverted after the treatment. Besides, scyllo-inositol seems to increase the mice activity during MB ($p<0.05$). **Conclusion:** Preliminary data suggest that TgCRND8 mice present disrupted nest building behaviour. The animals also showed increased anxiety characteristics. Scyllo-inositol seems to reduce these symptoms and normalize disrupted nest building behaviour. Larger cohorts are necessary, so statistical significance can be established.

25 Assessment of Knowledge of Teens the County of Caxias-Ma on Sexual Violence Theme.

Sinara Meneses Ferreira, Apoliane Costa Sodr , Dandara Manuelle Matos Leite Sobral, La s Silva Fernandes, Lis Coelho Fortes, Raquel Rosa Candebat Vallejo Ara ujo.

Introduction: Sexual Abuse is defined as a situation in which an individual is used without your consent or understanding of the facts, for the sexual gratification of an older person. Sexual abuse has a great impact on physical and mental health of the victim, leaving traces in its development, with damage that can persist throughout life. Its early detection allows appropriate treatment and monitoring with minimum consequences. Encourage the training of professionals involved directly with this target facilitates the identification of victims and combating sexual crimes. **Objectives:** To identify the degree of knowledge of children and adolescents of school age on the theme sexual abuse to assess the susceptibility of this public sexual crimes and promote sex education in school. **Methods:** The organization of the results was performed in charts through simple mathematical calculations. **Results:** According to information gathered through questionnaires, 47.4% of students surveyed did not know the number of human rights denunciations to, only 48.66% knows the age group most affected by sexual offenses, 18% know the Guardian Council as local to denunciations; 51.3% denounce solely to their own family and only 12% to the police; 43.33% believe that crime is mostly committed by strangers. **Conclusion:** The lack of knowledge on the subject Sexual Violence against children and adolescents increases the susceptibility of this public. It is necessary the help of professionals who work directly with children and adolescents to greater notification of sexual violence and for early and adequate treatment of the victims.

26 Relapses of Leprosy Cases in the State of Maranhão.

DandaraManuelle Matos Leite Sobral; Iago Carvalho Rezen-de Pacheco; Laís Silva Fernandes; Lis Coelho Fortes; Maria Eduarda Pires de Moura e Sinésio Torres Junior.

Introduction: Leprosy relapse is the reappearance of the disease after a regular treatment with the current regimens and discharge for healing are rare in patients regularly treated with multidrug regimens. According to the Health Ministry, the clinical criteria for the diagnosis of relapse should be based on operational classification, where ruled out reactive state. Studies to identify factors related to relapse are essential in order to obtain better accuracy of clinical diagnosis, epidemiological and therapeutic, avoiding the increased morbidity, the persistence of bacteria, drug resistance and physical disabilities. **Objectives:** To compare the new entries for leprosy relapse on specialized and basic of health care in the state of Maranhão. **Methods:** A descriptive, retrospective study with quantitative data analysis, based on records of relapse of leprosy cases in the Information System for Notifiable Diseases (SINAN) from 2008 to 2012, notified in the state of Maranhão. **Results:** Between 2008-2012, there were 23,692 reported cases of leprosy, and 856 of these were relapsed cases in Maranhão. The confirmed diagnoses, both in total, 35.44 %, and in relapses, 40.07 %, prevailed in the age group 20-39 years. The male (70.79 %) and operating class multibacillary (87.03 %) had higher rates. Differences were observed differences in the percentages of entries among the health units and the way in clinical relapses, respectively, 50.81 %, for patients who had not completed the data and the clinical form being dimorphic, with 41.12 %, the prevalent. **Conclusion:** It is necessary, therefore, a greater number of studies on the subject, so that before a suspected case of relapse, this should be sent to a reference center for a detailed check of all clinical, epidemiological and laboratory aspects, which can confirm this diagnosis.

27 Epidemiological Profile Of Exogenous Intoxications In The State Of Piauí.

Dandara Manuelle Matos Leite Sobral, Laís Silva Fernandes, Camila Vidal Rocha, Lorena Fernandes Barbosa, Luis Carlos Figueira De Carvalho.

Introduction: Exogenous intoxication is the manifestation, through signs and symptoms of the harmful effects produced in an individual as a result of his interaction with some substance or drug intolerable for the body. The World Health Organization estimated that 1.5 to 3% of the population is poisoned every year, accounting for 4.8 million new cases in Brazil. Such grievance becomes common in emergency departments and indiscriminate use of drugs leads the ranking of intoxicating agents. **Objectives:** To describe the epidemiological profile in cases of exogenous intoxications in Piauí, describing the outcome of the initial post-contamination of patients SUS users. **Methods:** Cross-sectional study based on all data (N = 2,047) of exogenous intoxication Information System for Notifiable Diseases from 2008 to 2012, reported in Piauí. Were collected in gender, age, race, education, toxic agent, residence, diagnostic mode, final classification, occurrence of hospitalization and outcome of morbidity. **Results:** It was recorded between 2008 and 2012, 2,047 cases of exogenous intoxications, highlighting considerable increase each year. Most are female (56,62%), mixed (62,5%), living in urban centers (75,5%), inserted in the age group 20-34 years (33,4%), and relevant part ignored the Question education (32,4%). The prevalence of intoxication indiscriminate use of drugs (37,86%), clinical diagnosis alone (55,64%), final confirmation of intoxication in 70,5% of cases and confirmation of hospitalization for 50.17% of total, and 61% of the individuals showed healing without sequelae. **Conclusion:** It is necessary a profile of prevalence to the attention of public health and prevention. Thus, the ratification of the influence of factors outside the health / disease process will provide the formulation of more targeted strategies, thus reducing morbidity and mortality from exogenous intoxications in the state.

28 Epidemiologic Analysis of Patients with Chronic Renal Failure Which Have Taken of Hemodialysis at the Municipality of Caxias – MA.

Isadora Maria Silva Santos, Rayza Sousa Mendes, Larissa Dias Serra, Irene Sousa Da Silva.

Introduction: Chronic renal failure (CRF) is characterized by persistent disturbance of renal function, in which the kidneys are unable to perform their normal activities. Because it is a chronic disease, its treatment requires special care in daily, aiming away all the factors that can complicate the prognosis. A The IRC has received increasing attention from the international scientific community, since its high prevalence has been demonstrated in recent studies. Hemodialysis is a measure used in the treatment of this disease, both the IRC and its treatment alters the routine of patients and their families. The analysis allows these patients to know the their profile affected by this disease, allowing the creation of public policies aimed at reducing the impact of this disease and of the hemodialysis in the personal, family and social scope. **Objectives:** To examine the epidemiology of chronic renal failure patients which have taken of hemodialysis at the municipality of CAXIAS - MA. **Methods:** This was a descriptive, prospective study with quantitative data analysis. For this, after having passed through the research ethics committee, semi-open questionnaires were administered to patients, after signing the consent form. The questionnaires were conducted in referral center hemodialysis, located in Caxias, which serves the population at the east of Maranhão. **Results:** We studied 40 patients undergoing hemodialysis, aged between 25 and 71 years, 55% male and 45% female, 45% declared they were black, 55% were single, 60% had primary and 10% had no training student. The age group in which there was a higher prevalence was 25-35 years with a frequency of 45%, has the lowest prevalence (30%) were between 51-75 years old. 85% of patients have income equivalent to the minimum wage, 10% have no source of income and 5% receive more than two minimum wages. **Conclusion:** Through the study of patients with CRF undergoing hemodialysis in Caxias, it was observed that this disease, at that town is related to the low level of education, the low financial support, with higher prevalence among younger patients.

29 Chronic Obstructive Pulmonary Disease: Oophorectomy Influence on Pulmonary Protection Against Papain-Induced Emphysema.

Mariana Rodrigues Barros da Silva Soares, Érik Vinicius de Sousa Reis, Neylon Barbosa Campelo, Rafael Leite Dantas and Livio César Cunha Nunes.

Introduction: Estrogens have the classic action mechanism regulating gene transcription. Also have studied other effects, such as interference in the startup process of lipid peroxidation, DNA damage protection and regulation of the activity of antioxidant enzymes like glutathione peroxidase. What still needs more foundation is its influence on lung protection. **Objectives:** The present study aimed to evaluate the influence of estrogen on lung protection in an experimental model of emphysema with tracheal spraying of papain. **Methods:** After approval by the Ethics Committee (CEP-UESPI 007/2012), we used 40 rats (*Rattus norvegicus*, *Albinus*, Wistar) were divided into four groups: control, castration, emphysema / papain and emphysema / papain / castration. Castration: after anesthesia with ketamine-xilasine IM, scraping was performed in the dorsal region, between the last rib and pelvic area, being done 1 cm incision. The ovarian and excision ligation were made with a hemostat and the uterine horn was replaced in the abdominal cavity, that was sutured. For induction of emphysema, sprays were carried out with papain, at days 0, 7 and 14 (around 6 mg in each spray) for a Microspray (Penn-Century ®). For evaluation of the results was performed bronchoalveolar lavage (BAL) and histopathology. **Results:** Data bronchoalveolar lavage showed a significant difference (p <0.05) in neutrophils when comparing groups emphysema/papain (910 x 20) and the group emphysema / papain / castration (1020 x 20) One possible explanation for this would be the loss of the protective activity of estrogen in the lung. In group emphysema / papain and emphysema / papain / castration we observe marked degree of parenchymal

destruction compatible with emphysema. **Conclusion:** Based on the analyzes, we observed a probable protective action of estrogen, since the neutrophil recruitment, cell main finding of emphysema, was larger in the group castration.

30 Pulmonary Emphysema: An Alternative to the Experimental Model with Cigarette.

Mariana Rodrigues Barros da Silva Soares, Érik Vinícius de Souza Reis, Neylon Barbosa Campelo, Rafael Leite Dantas and Livio Cesar Cunha Nunes.

Introduction: Lung diseases are among the leading causes of hospitalization in SUS (about 16% of all hospital admissions). Among those, the obstructive, such as emphysema, are the most common. These obstructive pathologies, however, have no effective treatments with low side effects. One of the first steps to reverse this fact is the development / adaptation of experimental models of emphysema. **Objectives:** The present study aimed the development / adaptation of two experimental models of emphysema: one with passive inhalation of cigarette smoke and another spraying papain in tracheal. **Methods:** After approval by the Ethics Committee (CEP-UESPI 007/2012) we used 30 rats (*Rattus norvegicus*, *Albinus*, Wistar rats) were divided into three groups: CONTROL, group EMPHYSEMA / PAPAINE and group EMPHYSEMA / CIGARETTE. For the induction of emphysema with cigarette, the animals were placed in an inhalation chamber for 30 minutes, twice daily, for 45 days (8 filter cigarettes per day). The spraying of papain in the lungs, of anesthetized rats (ketamine-xylazine MI), was held by a Microspray (Penn-Century ®) on days 0, 7 and 14 (about 6mg in each spray). For evaluation of the results was performed radiological analysis of the intercostal space, performed by Image Pro Plus software, bronchial alveolar lavage (BAL) and histopathology. **Results:** LBA data showed a significant difference ($p < 0.05$) in the number of neutrophils, when groups EMPHYSEMA / CIGARETTE (920x106) and EMPHYSEMA / PAPAINE (890x106) were compared with CONTROL (20x106). When analyzing the two experimental groups of emphysema, we observed an equivalent number of neutrophils and similar degrees hyalinization, congestion and alveolar collapse. A radiological analysis of the intercostal space showed no significant difference when comparing the CONTROL group and the groups EMPHYSEMA / PAPAINE and EMPHYSEMA / CIGARETTE. **Conclusion:** The model of emphysema spraying papain is an alternative model of emphysema with cigarette: occurred saving time, reducing stress (team and animals) and maintenance of the characteristic findings of emphysema.

31 Epidemiological Profile of the Traumatized Patients Admitted to an Emergency Public Hospital in Teresina-PI.

Breno Douglas Dantas Oliveira, Marcela Do Nascimento Silva, Raul De Castro Andrade Carvalho, Wellington Ribeiro Figueiredo.

Introduction: The big changes in the urban areas have caused modifications in the epidemiological profile of the population making them more likely to face trauma events. In Brazil, traumas are responsible for around 2 million hospitalizations a year and, on average, kill 100 thousand individuals annually and limit many others for a short time or forever. In Piauí, there are few data on the theme but the existing ones show an increasing number of victims with a consequent increase in the mortality rates. **Objectives:** This study aims to know the profile of the trauma victims in a public hospital. It also aims to describe the social demographic data of the traumatized patients and to define the data related to the trauma. **Methods:** It is a documental, retrospective, descriptive research with a quantitative approach taking into account 36,387 admission records and sample constituted of 2,619 medical records concerning the trauma victims admitted in an emergency public hospital in Teresina. The information was organized and characterized in absolute and relative frequencies, and the results were shown in graphics and tables. **Results:** The analysis has revealed the predominance of the male gender (70.7%), at the age group 21 to 40 (44.6%), single (59.2%), incomplete elementary

school (42.3%), from Piauí (93.4%) and from Teresina (68.1%), motorcycle accident (36.4%), in hospital by their own vehicle or others (47.6%), at the beginning of the month (36.2%) schedule between 6 p.m. to 11:59 p.m. (37%), with trauma injury in the upper limb (31%) and the need of orthopedics evaluation (47.7%). **Conclusion:** It can be concluded Piauí has a great number of attendances to trauma patients, around 100 a day, which corresponds to the highest rates of motorcycle accidents and falls regarding the data from the other Brazilian cities. Therefore, it deserves importance concerning health policies through the development of preventive actions and control of their occurrences in the state.

32 Qualitative Study About the Evaluation and Pain Control and Its Impacts on the Life Quality at Postoperative of Caesarean Section Patients at the Municipality of Caxias.

Larissa Dias Serra, Isadora Maria Silva Santos, Rafael Lima Teles, Rayza Sousa Mendes, Suzanne Maria Nunes De Souza, Francisco Costa Gomes Filho.

Introduction: Management of pain after cesarean section differs slightly from other surgeries, because women need fast recovery to take care of the newborn, therefore, it's recommended the choice for drugs and techniques which do not alter the ability to walk and awareness. Despite therapeutic advances using strong analgesics, the pain gets to be intense and represents major functional limitation. Pain control restrain the incidence of complications, reduces hospital stay, diminishes the corresponding costs and allows more rapid recovery of the productive capacity of the patient. **Objectives:** To evaluate the measurement and pain control after cesarean section, checking its pertinence regarding functional limitation of patients in the city of Caxias. **Methods:** This was a descriptive, prospective study with a qualitative approach. The study was approved by the Ethics Committee of Uema. Semi-open questionnaires were used and applied to patients after them signing the consent form. The questionnaires were conducted during a visit at the Caxias-MA maternity. The criterion for inclusion in the research is to be a patient complaining of pain, after undergoing cesarean surgery and is hospitalized in the premises of motherhood. **Results:** The study was conducted with a sample of 50 postpartum women during the first half of 2013. The evaluation and measurement of the factors that influence the pain perception after cesarean section, considered concomitant administration of pharmacological analgesia. It was found that a clear majority (72%) of the women complained of moderate to severe pain immediately after cesarean, this data evolved to weak (= standard measurement numerical scale) after monitored administration of dipyrone, the present study analyzed an age group 13-36 years pregnant women, at a median socioeconomic status and low education (31%). **Conclusion:** The present pain in the study participants presented itself as intense soon after surgery, progressing to moderate and then to weak after drug administration. The algic feeling causes limitation, specially engaged in sitting and standing and walking (76%). This study demonstrates that the pain undertakes activities, hampers the early movement and delays the first parent-child contact.

33 Gaucher Disease Study in a Family Inside the Maranhao State.

Samira Shizuko Parreão Oi;Victor Bruno Pereira Pinto;Almir José Guimarães Gouveia;Carlos Alberto Rosado da Silva Filho;Maria do Desterro Soares Brandão Nascimento;Dario Itapary Nicolau.

Introduction: Gaucher disease (GD) is a congenital condition, chronic and degenerative. It's the most common lysosomal storage disease, with autosomal recessive character, caused by a mutation in the GBA gene, which encodes the glucocerebrosidase enzyme. GD can manifest itself in many ways, characterizing itself as a clinical disease based on presence or absence of CNS involvement, and in its severity. The diagnosis is clinical and laboratory by the determination of the activity of the enzyme glucocerebrosidase in leukocytes. In the last decade, the enzyme replacement therapy (ERT) has become the standard treatment for GD type 1.

Objectives: To study the response to the ERT in a group of people of the same family with GD from the municipality of São Domingos do Maranhão. It also aims to know the provided assistance and the main mutations found in the group, relating them to the clinical forms found. **Methods:** Observational study, descriptive, retrospective and prospective, in a group of patients (n = 11) of a same family, from São Domingos-MA, with GD, accompanied in the supervision of Haematology and haemotherapy do Maranhão (HEMOMAR), situated in the capital of state. It was used two consent forms, with clinical data, laboratory data, radiological data and social data, in addition to the records on the charts, for the years 2003 to 2010. This survey was submitted to analysis of the Research Ethics Committee of the University Hospital of the Federal University of Maranhão, 5587 Protocol. **Results:** Of the 11 family members, 5 had diagnosis of GD, all in adulthood (average of 28.4 years). 80% of individuals (n = 4/5) are female, with a predominance of brown colour, being only one patient of white color. About the profession, 4 are farmers and 1 is of the home. All patients have GD type 1, so, it comprises a characteristic clinical picture of non-neuropático. Before the start of the ERT, only 1 patient was with a normal quitotriosidase level, the other had high levels; after about seven years, 100% of the patients presented quitotriosidase levels in the normal values. **Conclusion:** The treatment through the ERT allowed an improvement of haematological changes, hepatosplenomegaly and in the quality of life of these patients. The unknowledge of doctors and healthcare professionals about this disease and the public health conditions of Maranhão itself, probably collaborate to the late diagnosis of these patients.

34 Expanding the Comprehension of Coccidioidomycosis Epidemiology in Brazilian Northeast Count.

Vicktor Bruno Pereira Pinto, José Pereira Guará, Carlos Alberto Rosado da Silva Filho, Almir José Guimarães Gouveia, Geusa Felipa de Barros Bezerra, Maria do Desterro Soares Brandão Nascimento.

Introduction: Coccidioidomycosis is a systemic granulomatous disease with endemic character of great importance both nationally and globally. Most statistics on the prevalence and incidence of mycosis in Latin America are fragmented or not available. In Brazil, the first discovered cases were reported in Piauí and Ceará, followed by Bahia and Maranhão affecting mainly hunters and people who work with direct contact with the soil excavated favoring the onset of coccidioidomycosis. **Objectives:** To investigate coccidioidomycosis in armadillos' hunter in the state of Maranhão. **Methods:** We selected 25 hunters of armadillos, from the municipalities of Maranhão: Arame, Grajaú and Sítio Novo from August 2004 to July 2006. Epidemiological questionnaires were managed and it was collected blood samples for serological tests also applying specific skin test. This study was approved by the Ethics Committee in Research of the University Hospital of UFMA based on Opinion No.: 279/06. **Results:** It was observed that 80% (n = 20/25) of coccidioidin skin tests were positive after 24 hours. 56% (n = 14/25) was strongly positive reaction with reading exceeding 10mm are also investigating the exposure time of hunters. Serological tests were all non-reactive. **Conclusion:** Positive skin prick tests provide new information about the disease: the existence of coccidioidomycosis infection in the state of Maranhão.

35 Breast Cancer in Men: A Review of Epidemiological Clinical and Therapeutic Service in Brazilian Formal.

Raimundo Jovita de Arruda Bonfim, Almir José Guimarães Gouveia, Carlos Alberto Rosado da Silva Filho, Vicktor Bruno Pereira Pinto, Flávia Castello Branco Vidal, Maria do Desterro Soares Brandão Nascimento

Introduction: Breast cancer in men is a rare disease, with a low rate 0.2% among all cancers, and about 1% among malignant tumors that compromise the man whose incidence increases with age, with a prevalence between the sixth and seventh decade of life. The ratio is each 150 women diagnosed with breast cancer

there is a male case. **Objectives:** To describe the epidemiological, clinical and therapeutic breast cancer in men in service enabled by SUS. **Methods:** It consists in a descriptive retrospective study of medical records collected in the archives of the Institute of Oncology Maranhense Aldenora Bello (IMOAB) in São Luís, Maranhão, in the period 2000-2011. It included the male patients aged 43-95 years. It was obtained sociodemographic data, clinical and therapeutic, especially, the histopathological and immunohistochemical profile. **Results:** The analysis of cases allowed us to establish the knowledge of the demographics, clinical staging and therapeutic procedure performed in patients. The calculated average age was 66.4 years, median 66.5 years, with most cases in the study included age between 61-75 years old, married, illiterate farmers, from the countryside of Maranhão (62,50%), mainly originated in municipalities: Buriticupu, Esperantinópolis, Morros Peri Mirim, Piu XII, São Benedito, São José de Ribamar, São Mateus and Vitória do Mearim. The tumor is preferably located in the area of both breasts retroareolar measuring between 1.5 to 17 cm in diameter. The histology revealed a predominance of infiltrating ductal carcinoma (75.00%), papillary carcinoma and leiomyosarcoma 6.25% 6.25%. The moderate histological grade (62.50%) was the most frequent. Most patients (56.25%) was in initial stages (I - 6.25% -25.00% IIA, and IIB - 25.00%), followed IV (18.75%) Showed that 81.25% were treated by radical mastectomy surgery and subsequent radiotherapy, chemotherapy and hormone therapy. **Conclusion:** It is shown a low frequency of the disease in men, emphasizing the diagnosis of more than half of all cases of cancer in initial stages, thus allowing greater survival. Furthermore, the service is only enabled by SUS in the capital of Maranhão, being distant from the municipalities of men's origin denoting the identification of the disease later.

36 Fungal Microbiota of the Ocular Conjunctiva of Babassu Nut Breakers.

Carlos Alberto Rosado da Silva Filho, Valéria Maria Sousa Leitão, Almir José Guimarães Gouveia, Vicktor Bruno Pereira Pinto, Maria do Desterro Soares Brandão Nascimento, Geusa Felipa de Barros Bezerra.

Introduction: More than 400,000 extractive workers use babassu as a source of income, especially in the states of Maranhão, Piauí, Tocantins and Pará, being this activity associated with fungal infections. The ocular conjunctiva is in constant contact with the environment which represents an input port for many fungal infections, including keratitis and endophthalmitis and may infect the retina, choroid, vitreous humor. **Objectives:** To investigate the fungal microbiota in the ocular conjunctiva of babassu nut breakers in the state of Maranhão countryside. **Methods:** Were studied by Sabouraud Agar and potato Agar and with chloramphenicol means of culture, the material of the lower fornix of both eyes, collected with swab, of 80 women babassu nut breakers in Zone Cocais, Middle Mearim micro region in the State of Maranhão, city of Esperantinópolis. We conducted the same study in a control group of 30 individuals. This study was approved by the Ethics Committee in Research of the University Hospital of UFMA under Opinion No.: 287/06. **Results:** From the ocular conjunctiva of 80 babassu nut breakers evaluated were obtained 76.3% (61) of positive cultures for fungi. There were performed 72 fungal isolations, being filamentous fungi more frequent, identified in 58 (80.57%) breakers. Already yeasts were found in 14 (19.43%) breakers. The genus *Aspergillus* sp was the most isolated, 33.33%, followed by *Candida* sp, with 15.27%. In the control group, only 40% positive cultures were obtained, predominating yeasts. **Conclusion:** In the fungal microbiota of the ocular conjunctiva of babassu nut breakers, predominates *Aspergillus* sp genus. This relates to the different hygienic, climate and vegetation conditions of the regions and may be related to occupational activity. In addition, they perform their activities without personal protective equipment, which exposes them to inherent risks of the work. The presence of these fungi in the conjunctiva is a constant threat to the eyes of these individuals, because the condition of low immunity promotes aggression by those opportunistic fungi.

37 Epidemiology Accidents Involving Venomous Animals in Caxias, Maranhão, Brazil.

Myrna Maria Martins Ribeiro, Carlos Alberto Rosado da Silva Filho, Almir José Guimarães Gouveia, Isadora Maria Silva Santos, Víctor Manfrinni Magalhães Lima Martins, Maria do Desterro Soares Brandão Nascimento.

Introduction: Accidents caused by poisonous snakes are extremely serious to public health in tropical countries, particularly in Latin America. It is estimated that 2,500 thousand accidents with poisonous snakes occur annually in the world, about 125 thousand are lethal. Brazil is characterized for having tropical climate, and consequently great diversity of fauna, which can occasionally cause damage to human health. **Objectives:** To evaluate the epidemiological aspects of accidents by poisonous animals occurred in the city of Caxias, Maranhão, Brazil, between the years 2007 and 2012. **Methods:** Retrospective and descriptive Study of 222 accidents by poisonous animals in Caxias, Maranhão, Brazil, in the period from 2007 to 2012, notified by the System of Information of Aggravations and Notification (SINAN). The following aspects were observed: time of year with greater involvement, occurrence area, age group, sex, place of aggression, elapsed time of the accident until the attendance, symptoms presented, classification and evolution of cases and use of serotherapy. **Results:** It was reported during this period, 222 accidents by poisonous animals, with an accumulated incidence of 14.3 cases/10,000 inhabitants and general lethality of 0.9%. There was predominance in male victims (68%), browns (64.9%), who live in the countryside (58.4%) and have low schooling, with 25.2% being illiterate and 52.8% with incomplete elementary education. The anatomic regions more often bite were: foot (33.8%), hands (19.8%) and legs (17.6%). Approximately nine out of ten patients were treated with serotherapy. The snakes were the animals that most attacked (57.7%), followed by the scorpions (36%) and spiders (4.5%). Among the 108 cases in which there was reference to the genre of the serpent, 70.4% were caused by *Crotalus*, 21.3% by *Bothrops* and 5.6% by *Micrurus*. **Conclusion:** The epidemiology of accidents by poisonous animals indicates higher frequency of accidents in male patients with low schooling, living in the countryside, especially reaching the lower limbs. In this way, it is necessary to prevent them, in addition to performing targeted campaigns to hit the portion most attacked of the population.

38 Evolution of Visceral Leishmaniasis in Maranhão: Epidemiological Determinants.

Carlos Alberto Rosado da Silva Filho, Almir José Guimarães Gouveia, Víctor Bruno Pereira Pinto, Geusa Felipa de Barros Bezerra, Graça Maria de Castro Viana, Maria do Desterro Soares Brandão Nascimento.

Introduction: Visceral leishmaniasis (VL) has expanded and urbanized and worsen this public healthy problem in th northeastern of Brazil. The implementation of healthy education programes in endemic areas is really important to disease control. **Objectives:** To describe the evolution of endemic visceral leishmaniasis in the state of Maranhão. **Methods:** It was a descriptive epidemiological study conducted in the state of Maranhão, Brazil, based on visceral leishmaniasis cases reported to the Information System for Notifiable Diseases in the period 2001-2013. We analyzed the following variations contained in the form of compulsory notification of the disease: age, sex, education in years of instruction, clinical manifestations, co-infection with HIV, used medicaments and municipalities' registration. **Results:** There were 2,455 reported cases of VL at the time of the study, the cumulative incidence (AI) was 3.74 cases/10000 hab. The fatality rate was 3.91%. The males (59.4%) and aged 0-9 years (65.7%) were the most affected, as well as the low level of education and 23.9% illiterate or with incomplete primary education; 4.6% were co-infected with HIV and 218 (8.9%) had hemorrhagic phenomena. The pentavalent antimony drug was initially used in 2,061 cases (84%). The highest number of notifications occurred in the municipalities of Imperatriz with 205 cases whose cumulative incidence (AI) amounts to 8.28 cases/10000 inhabitants, followed by 192 and Caxias with IA 12.38 cases/10000 hab, and São Luís with 156 and IA = 1.54 cases/10000 hab). **Conclusion:** LV has maintained high levels in the state of Maranhão, with a high percentage of notifications in children, males and HIV positive, with most occurring in more populated municipalities of the state. Given this reality, it emphasizes the importance of a reassessment of LV control programs.

39 Depression as a Psychiatric Manifestation in Primary Progressive Aphasia: Case Report.

Myrian Mathildes Sá De Deus Rocha, Iêda Cristina Sousa Da Rocha, Raimundo Nonato Campos Sousa, Kelson James Silva De Almeida, Kelson James Silva De Almeida.

Introduction: Primary progressive aphasia (PPA), a frontotemporal lobar degeneration, is characterized by progressive degeneration of language starting before 65 years, of insidious installation and relative default of impairment in other relevant cognitive areas. The initial manifestation of PPA is, frequently, the difficult to name and a differential aspect is the existence of language alterations only, for at least two years. Neuropsychiatric symptoms as depression, anxiety, apathy and eating disorders were related in PPA patients. The case report presented refers to a patient with diagnosis of PPA associated with comorbidity of depression. **The Case:** Female patient, 64 years old, literate, house worker, from rural area of northeast of Brazil. 2 years ago, family has observed difficult in finding words, repetition of phrases and reading difficult. The clinical picture has manifested with functional damage restrict to language, characterized by the impossibility of biblical reading that motivated the frequent change of visited churches, resulting in social reclusion and lost of interest in activities. The clinical picture evolved to difficult in name family, while the prosopagnosia was kept. The patient showed paraphasia and needed help to end words utterance. The fluency reduction occurred. An evaluation verified presence of depression by the score of 16 in Beck Depression inventory. Scores verified the current language impairment associated to predominantly frontal dysfunction (mini-exam of mental state) and also visuospatial with certain temporal preservation (Brief battery of cognitive screening). The encephalic MRI evidenced the diagnosis of PPA. **Conclusion:** About 1/3 of PPA patients presents positive diagnosis for depression. The patient can recall and evaluate events although they are not able to express their knowledge verbally. The progressive worsening of communication associated to memory, reasoning and discernment preservation can be an overweight factor to diagnosis of depression in PPA patients. Therefore, the depressive symptomatology is frequent in PPA patients. The diagnosis of depression in PPA patients is important so the appropriated treatment can be referred.

40 Wilson's Disease.

Lucas Daniel Pereira Lopes, Andressa Dantas De Moura Santos, Helena Julice Alencar De Albuquerque, Jordana Rosal Pádua, Sofia Neves Pinheiro Da Costa.

Introduction: Wilson's disease is a rare autosomal recessive disorder, characterized by hepatic cirrhosis and degenerative changes at the basal ganglia due to inborn error of metabolism linked to copper, which accumulates at the tissues, caused by a defect in the mechanism of excretion of this metal inside liver cells. The disease progresses gradually, being found consanguinity between the parents of the wearer. There is a male predominance, and the symptoms appear at around 10-20 years of age, which are liver failure, ascites, jaundice, neurologic or psychiatric disorders, tremors, muscle rigidity, and dysarthria. Diagnosis is made through copper level in 24-hour urine, serum copper, ceruloplasmin and Kaiser-Fleischer ring in the eyes. **The Case:** Patient WCO, 20, male, single, farmer, born and raised at the city of Acopiara - Ceará, refers difficulty swallowing a year and a half, hand tremor movement, often choking, dysarthria and body rigidity. He presented paresis muscle of mastication and muscle paralysis of facial mime; flexed posture; Kaiser-Fleischer rings in both eyes and weight loss of 15 pounds in three months; high urinary copper (93.7) and low ceruloplasmin (1.8). His parents were true cousins. **Conclusion:** Therefore, Wilson's disease is a rare disease that involves inbreeding and affects sensory, social and motor functions. Often the diagnosis is delayed, which requires more scientific medical studies, in order to develop specific drugs to reduce their grievances, and recognize the signs and symptoms of the disease to get early diagnosis.

41 Chagas Disease in the State of Maranhão, Brazil: Report of Acute Cases in the Period 2007-2011.

Dandara Manuelle Matos Leite Sobral, Iago Carvalho Rezende Pacheco, Laís Silva Fernandes, Lis Coelho Fortes, Maria Eduarda Pires de Moura, Sinésio Torres Junior.

Introduction: The World Health Organization (WHO) indicated that are estimated 12-14 million individuals infected by Chagas disease in Latin America. In the state of Maranhão, this disease does not have the classic pattern of endemic transmission. However, the previous entomological survey finds high rates of natural infection of vectors and acute cases have been recorded in the last decades. The socio-demographic and environmental issues involved in the onset of acute illness, in a state not considered endemic for the disease such as Maranhão, demonstrates the need for knowledge of the prevalence and incidence of the disease more accurate. **Objectives:** To assess the socio-demographic and environmental issues involved in the transmission of Chagas disease in the state of Maranhão. **Methods:** This was a descriptive, retrospective study with quantitative analysis of data from acute cases of the disease in question (N=31 cases) from 2007 to 2011. The data relating to patients were obtained from the database of the Information System for Notifiable Diseases. **Results:** Between 2007-2011, there were 31 reported cases of acute Chagas disease in Maranhão. In patients with confirmed diagnosis prevailed those with laboratory diagnostic criteria (93.5%) with suspected infection site not specified (61.29%) and method of oral infection (64.51%). The male was involved in 64.51% of cases in the age group 20-39 years (32.25%) and that has no level of education (80.6%). It was also possible to evaluate the evolution of the disease, which presented positive data seen that 80.6% of patients are alive. **Conclusion:** The prevalence of acute Chagas disease in Maranhão was observed in male patients between 20-39 years and that they had no schooling. There was also a greater number of cases of infection orally with diagnosis of infection by laboratory and are presented alive with disease progression.

42 Epidemiologic Profile Of Patients With Viral Hepatitis In The Municipality Of Caxias - MA.

Dandara Manuelle Matos Leite Sobral, Iago Carvalho Rezende Pacheco, Laís Silva Fernandes, Lis Coelho Fortes, Sinara Meneses Ferreira e Irene Sousa da Silva.

Introduction: Viral hepatitis is serious public health problem, with significant variations in incidence and prevalence, according to geographical region. They are caused by various etiological agents, viruses are the most common named A, B, C, D, E, F and G, which act on the liver cells and may lead to different clinical pictures. There is great importance in epidemiological research on the person, the etiologic agent, time and place in patients with hepatitis aimed at prevention and health improvement. **Objectives:** To describe the epidemiological profile of patients with viral hepatitis reported by SUS in Caxias - MA. **Methods:** Prevalence study, descriptive and retrospective involving the Information System for Notifiable Diseases. The collection was previously selected of each case of hepatitis confirmed and registered between January 2008 and December 2012. The data were exported to Microsoft Excel 2010 version and Microsoft Word 2013 version and thus analyzed. **Results:** In the time interval set confirmed 708 cases of hepatitis in the city, approximately 70% of these occurring between 2009 and 2011. The affected individuals were predominantly male (51.83%), brown (67.65%) and education level from 1st to 4th grade incomplete (23.5%) residing in the urban (77.4%), included in the range between 13 and 59 years, here defined as adult (64.6%). Most patients represented in the study (78.24%) ignored the question on the last sexual intercourse and in 82.87% of cases there was no trace of markers indicative of Viral Hepatitis, prioritizing clinical diagnoses. **Conclusion:** The formulation of a profile of patients with viral hepatitis provides more efficient management solutions for the problem, promotes access to qualified health care and encourages participation and social articulation. Enabling thus a decline in levels epidemiological presented.

43 Epidemiologic Aspects of Dengue in the City of Teresina, PI in the Period of 2002 to 2012.

Luiz Euripedes Almondes Santana Lemos, Guilherme Chagas Feitosa, Diógenes Monteiro Reis, Leonardo Melo Rodrigues, Anna Alzira Macau Furtado Ferreira, Mírian Perpétua Palha Dias Parente.

Introduction: Dengue is a viral disease mainly transmitted by the mosquito *Aedes (Stegomyia) aegypti* and considered one of the most important arboviruses in the world. It is transmitted by a flavivirus which has four serotypes: DENV - 1 to DENV - 4, in the last decade were registered 700.000 cases of the disease in Brazil. Dengue presents a diverse range of clinical manifestations, from undifferentiated fever, fever with headache, musculoskeletal pain with or without rash, leukopenia and bleeding, to a hypovolemic shock, gastrointestinal bleeding, and the called atypical forms, such as encephalopathy, cardiomyopathy and liver disease. **Objectives:** To assess the incidence / prevalence of reported cases of dengue in Teresina, PI, in the period of 2002-2012, and evaluate the clinical manifestations and course of the disease in the mentioned period. **Methods:** Was performed an analysis of data provided by national service of compulsory notification (SINAN) for notifications of dengue in Teresina, in the period of 2002-2012. Were analyzed the indicators related to: sex, clinical course, complications and final classification. **Results:** Between the years of 2002 and 2012 were recorded 23.040 cases of dengue in Teresina, 12.935 were female, and male were 10.105. The years that had more cases reported were: 2007 (4.906), 2011 (5.548) and 2012 (7.236). The major presentations on the classification of the disease were the following: 21.699 (94.1%) cases of classical type of the disease, 271 (1.17%) cases showed clinical complications; 180 (0.782%) cases were dengue with hemorrhagic fever and four cases (0.017%) progressed to dengue shock syndrome, the most serious manifestation of the disease. The main clinical complications were: 55.8% had thrombocytopenia (platelet count less than 50.000 per mm³), 16.23% had serous effusions, 3.02% of patients had neurological complications and gastrointestinal hemorrhages, 1.51% showed cardiorespiratory disorders and 0.38% had liver failure. From cases evaluated, 87.68% of patients progressed to cure and 27 (0.12%) died. **Conclusion:** With the data analysis, it was noticed a higher prevalence of dengue in women and that the main clinical complication was thrombocytopenia. It was observed that most cases of the disease are the classical type and proceeds to cure but still death is a reality in the course of this disease.

44 Assessment of Hypoglycemic and Antihyperglycemic Activity from *G. Americana* l. Inside an Experimental Model of Obesity.

Andressa Dantas De Moura Santos, Candice Lages Soares Teive, Helena Julice Alencar De Albuquerque, Jordana Rosal Pádua, Lucas Daniel Pereira Lopes, Yula Pires Da Silveira Fontenele De Meneses.

Introduction: The sedentary lifestyle and the change of eating habits are features presents today, which causes significant impact on health and early mortality of large populations. The increasing incidence of obesity in the world population is one of the most serious consequences of these changes. To fix the situation, will be necessary changes in lifestyle, associated to effective therapeutic measures. **Objectives:** To assess the hypoglycemic and antihyperglycemic effect from *G. americana* L. inside an experimental model of obesity. **Methods:** An experimental study with qualitative and quantitative evaluation of the sample data, which was approved by the Research Ethics Committee of University Uninovafapi, in which 18 Wistar rats underwent obesity will monoglutamate sodium (4 mg/g) by 5 days since thirth life day. At the twelfth week, they were divided into three groups with six members: the control group which saline was administered intragastrically once a day for seven days; on the second group, it was administered metformin once a day for seven days intragastrically, and on the third group it was given the crude extract of Jenipapo, once a day for seven days. Fast serum glucose was collected the morning (time 0) and after 30 min (time 1) in which glucose is offered after 60 minutes (Time 2) after 90 minutes (time 3). after 120 minutes (time 4). **Results:** It was noticed by the

glucose curve graph that the group which administered metformin, there was a greater reduction in blood glucose over time when considering the control group and the Jenipapo which got a lesser glycemic reduction, remaining equivalent by the time; Keeping Metformin as reducing glycemic with higher efficacy. **Conclusion:** So, it proved that the Jenipapo plant, typically from Piauí had no effect on hypoglycemic and antihyperglycaemic activity inside an experimental model obesity.

45 Evaluation of the Effects of Dietary Supplementation with Concentrated of *G. Americana* L. on Liver and Kidney Function in an Experimental Model of Obesity.

Helena Julice Alencar De Albuquerque, Sergio Fabricio Alencar De Albuquerque, Jordana Rosal Padua, Andressa Dantas De Moura Santos, Lucas Daniel Pereira Lopes, Maria Do Carmo De Carvalho E Martins.

Introduction: The lifestyle and changes in eating habits are characteristics present nowadays, causing significant impact on health and early mortality of large populations, in which one of the main consequences is obesity, which beyond to being a risk factor for many diseases, can also cause renal and liver in the body system. Based on this principle, the work to be developed has as its object of study the changes of the liver and kidney in obesity. **Objectives:** To evaluate the effects of dietary supplementation with concentrated of *G. americana* L. on liver and kidney function in an experimental model of obesity. Specifically quantify serum hepatic proteins (total protein, albumin), we determined serum levels of transaminases and alkaline phosphatase, serum urea and creatinine, and finally identify possible histological changes in the liver and kidneys. **Methods:** Study the experimental type, with qualitative and quantitative evaluation of sample data, and approved by the Ethics and research Uninovafapi. We used Wistar albino rats (*Rattus norvegicus*), males, aged 10-12 weeks. The animals were kept in collective cages (5 animals/box) with standard food for rats (Labina® - Purina). For induction of obesity animals received injections of monosodium sodium 4 mg / g body weight sc during 5 weeks 2-3 days after birth. At treated obese rats was administered once a day for seven days extract gross jenipapo 20% intragastric (0.5 mL/100 g body weight). In obese and normal control groups were administered intragastrically, saline solution, once daily, for seven days. After completion of each experimental protocol, euthanasia of the animals of each subgroup was performed by administration of sodium pentobarbital overdose (100 mg / kg) intraperitoneally, immediately after, the study was conducted from liver and kidney tissues. **Results:** This study has a huge contribution to result in an improvement of renal and hepatic function, with a decrease in serum urea and creatinine, and decreased necro-inflammation of the liver and kidney tissues. **Conclusion:** Benefits jenipapo aid in the control of liver and kidney functions, helping to reduce the complications associated with this disease.

46 Epidemiologic Profile of Patients Undergoing Hemodialysis in a Renal Therapy Center in Timon-MA.

Anna Alzira Macau Furtado Ferreira, Máximo Peixoto Rocha Neto, Leonardo De Melo Rodrigues, Leon Marques Barbosa, Rosana Celia Noleto Magalhaes, Lucielma Salmito Soares Pinto.

Introduction: Chronic kidney disease (CKD) is defined as kidney damage characterized by structural or functional abnormalities of the kidneys with or without the reduction in glomerular filtration rate (GFR). Currently, CKD is a public health problem of global proportions. Among the main risk factors for CKD are hypertension and diabetes mellitus, increasingly frequent in the reality of developing countries. CKD does not have a good prognosis showing high morbidity and mortality rates and, to manage this condition, hemodialysis is an important and increasingly safe therapeutic modality. **Objectives:** To characterize the epidemiologic profile of chronic renal patients undergoing hemodialysis. **Methods:** This is an epidemiological, descriptive, transversal and quantitative survey held in a hemodialysis clinic in Timon-MA. The sample consisted of 80 patients undergoing hemodialysis. A questionnaire about the characterization of participants was used for data collection. **Results:** Most of the patients

observed were male (52.5%), aged between 36 to 55 years old. 74.7% reported being black. The most common comorbidity was hypertension (46.75%), followed by diabetes (29.87%). The main etiology of CRF was hypertensive nephrosclerosis (42.31%), followed by diabetes (15.38%), glomerulonephritis (10.26%) and polycystic kidney (5.13%). Most patients (55%) had had contact with tobacco, and 26 of them (32.5%) are still addicted to it. Regarding the use of alcohol, 27.5% are alcoholics and 31.3% are former alcoholics. **Conclusion:** The data presented show agreement with those described in literature, having a higher prevalence in male patients and adults. It may also be highlighted the important role of hypertension and diabetes as causal factors of CKD. Additionally, it is necessary that some educational work be done with this group in order to eliminate harmful habits such as alcohol consumption and smoking, which are related to worse control of the renal condition and decreased survival.

47 Musculoskeletal Alterations in Patients Undergoing Hemodialysis.

Máximo Peixoto Rocha Neto, Anna Alzira Macau Furtado Ferreira, Leonardo De Melo Rodrigues, Leon Marques Barbosa, Rosana Celia Noleto Magalhaes, Lucielma Salmito Soares Pinto.

Introduction: Chronic kidney disorders have a progressive process in most cases, and ultimately result in end-stage renal disease, requiring patients to go through dialysis treatment. Although safe, hemodialysis may result in many complications, including musculoskeletal alterations. **Objectives:** This study aimed to identify the main musculoskeletal alterations in patients undergoing hemodialysis and to relate such alterations to clinical and laboratory variables. **Methods:** A descriptive, observational, cross-sectional study was conducted with 80 patients undergoing hemodialysis in a renal therapy center in Timon-MA, from January to December 2010. Personal information and laboratory data were obtained from the medical records and clinical data were obtained through an interview and then analyzed using the SPSS-21 statistical software. A significance level of 5% was adopted. **Results:** Among the 80 patients, 52.5% were male with a mean age of 51.64 years. The musculoskeletal alterations were observed in 93.75% of the patients described in descending order: cramps (72.5%), muscle weakness (70%), joint pain (51.25%) and bone pain (44.15%). 30% of patients reported all the aforementioned symptoms. There were no significant associations among musculoskeletal alterations and duration of dialysis, PTH levels, Ca, P, alkaline phosphatase, glycemia, creatinine and body mass index. The occurrence of cramps was statistically associated with higher concentrations of ferritin and transferrin saturation and low serum albumin concentration. Patients with muscle weakness had a lower calcium-phosphorus product and a higher level of serum urea. It was observed that patients who performed aerobic physical activity for at least one hour, twice a week, reported less muscle weakness. Bone pain was statistically related to patient age. **Conclusion:** Despite the difficulty in objectively defining musculoskeletal alterations, the high frequency of this symptomatology among hemodialysis patients, as described in the scientific literature, was confirmed. The present data indicate that, for understanding the pathophysiology of these symptoms, it is required extensive analysis not restricted to markers of bone metabolism, but also involving protein markers such as albumin, parameters related to iron, urea and even physical activity.

48 Relationship Between Itching and Serum Concentrations of Calcium, Phosphorus and Parathyroid Hormone in Patients Undergoing Hemodialysis.

Máximo Peixoto Rocha Neto, Anna Alzira Macau Furtado Ferreira, Luiz Euripedes Almondes Santana Lemos, Leon Marques Barbosa, Rosana Celia Noleto Magalhaes, Lucielma Salmito Soares Pinto.

Introduction: The prevalence of mucocutaneous manifestations is high among patients with end-stage renal disease undergoing hemodialysis, and itching is the most common symptom in these patients, where prevalence ranges between 19% and 90%. Its pathophysiology remains unknown, it being believed to be multifactorial. However, recent studies attempt to relate alte-

rations in markers of bone metabolism to a higher incidence of itching. **Objectives:** To evaluate the association between itching and serum concentrations of calcium (Ca), phosphorus (P), parathyroid hormone (PTH) and calcium and phosphorus product (Ca*P) in patients with chronic kidney disease undergoing hemodialysis. **Methods:** A descriptive, observational, cross-sectional study with 77 patients undergoing hemodialysis in a renal therapy center Timon-MA was conducted from January to December 2010. Personal information and laboratory data were obtained from the medical records and clinical data were obtained through an interview and analyzed using the SPSS-21 statistical software. A significance level of 5% was adopted. **Results:** Of the 77 participating patients, 53.25% were men with a mean age of 51.37 years. The itching was reported by 48.65% of patients, being more prevalent among individuals 56 years old and older and among women. Although a larger number of patients with itching show alterations in the level of serum of Ca, P and Ca*P, statistically significant differences between the groups with or without itching were not observed. The PTH was abnormal in the majority of patients participating in the study, resulting in no positive association with the itching. **Conclusion:** Although some researches have been trying to relate discrepancies in the values of PTH, Ca, P and Ca*P to itching, this association is not so clear, and this study was not able to confirm such association. However, it may be concluded that the itching is a common symptom which may affect many of the hemodialysis patients and significantly change their quality of life. Thus, it is important that further studies be done to elucidate the pathophysiology and find better ways to approach this condition.

49 **Epidemiologic Profile of Patients with Tuberculosis in Comorbid with AIDS in the State of Piauí, from 2002 To 2012.**

Anna Alzira Macau Furtado Ferreira, Leonardo De Melo Rodrigues, Diógenes Monteiro Reis, Máximo Peixoto Rocha Neto, Pedro Manuel Barros De Sousa, Augusto César Evelin Rodrigues.

Introduction: With the emergence of AIDS in 1981, it has been observed, both in developed and in developing countries, an increase in the incidence of reported cases of tuberculosis (TB) in HIV-infected patients in such way that AIDS is becoming a determining factor in epidemiology changes, natural history and clinical evolution of TB. **Objectives:** To describe and analyze the profile of TB patients concomitantly confirmed with AIDS. **Methods:** This was a descriptive, retrospective study with quantitative analysis of data of TB cases in comorbidity with AIDS from 2002 to 2012, in the state of Piauí. The epidemiological survey was conducted through the Information System for Notifiable Diseases (SINAN). The data were graphically analyzed using Microsoft Excel 2010. **Results:** There have been 478 confirmed cases of tuberculosis in comorbid with AIDS in Piauí during the period analyzed. The classification by age group showed higher occurrence in the interval between 20 to 39 years old reporting 55.44% of the cases. As for gender, males accounted for 76.78% of the patients. After analyzing the ending results, 128 (26.78%) were cured, 20 (4.18%) were treatment dropouts, 25 (5.23%) died of tuberculosis, 29 (6.07%) died from other causes, 206 (43.10%) were transferred, and 1 (0.20%) was multi-resistant TB. In 126 cases (26.36%), the level of education was between 5th and 8th grade. Incomplete college education represented the lowest number of cases, five (1.05%). Extrapulmonary TB was reported in 351 cases, and the area being ignored in 69.23%. In 12.25% of the cases, the affected area was the peripheral ganglia, followed by the miliary, meningeal, osseous, cutaneous, and laryngeal forms. **Conclusion:** The highest incidence of TB cases in comorbid with AIDS occurred in males and in the age group of 20-39 years old, confirming previous studies. The data also showed a high ratio of extrapulmonary TB with AIDS. Low schooling interferes with treatment adherence and disease progression, as it generally reflects a poor quality of life, which increases the risk of infection and decreases adherence to treatment. It was observed that 43.10% of patients were transferred, making it difficult for a better analysis of the outcome.

50 **Sexual and Reproductive Rights: The Perception of Women Attending in a Public Maternity in Northeast of Brazil.**

Nahara Lima Jurema, Alysson Figueredo De Brito, Alberto Pereira Madeiro, Andrea Cronemberger Rufino.

Introduction: Sexual and reproductive rights are human rights that ensure freedom for the sexuality exercise and for decision making regarding reproduction. **Objectives:** To analyze how sexual and reproductive rights are recognized and exercised by women assisted at the Family Planning Service of Dona Evangelina Rosa Maternity in Teresina, Piauí. **Methods:** We developed an exploratory, descriptive, and cross-sectional study using a convenience sample consisting of 62 women above 18 years. It was applied a structured questionnaire with closed questions about the objectives of family planning, decision making, and partner's participation in the choice of contraceptive method. The study was approved by the Research Ethics Committee. **Results:** Almost all women (94%) reported having a sexual partner. Family planning was considered important for the couple (90%), to help prevent pregnancy (74%), to choose the number of children (69%), when to have them (59%), to provide more freedom for sexual activity (55%), to separate pleasure and reproduction (59%), and to ensure for pleasure (45%). The choice of contraceptive method was made by the couple (44%), women (37%), physician (11%), and partner (3%). The main contraceptive methods chosen were: tubal ligation (39%), condom (24%), and hormonal contraceptives (22%). The safety of contraceptive method (77%) was highlighted as the main factor for their choice, followed by the couple's opinion (47%), economic reasons (43%), opinion of women (42%) and ease of use (39%). To 19.3% of women, the partner had a negative influence on the choice of contraceptive method by refusing to wear condom. According to 89% of women, family planning allowed the freedom for sexual activity without fear of getting pregnant (82%) and with more pleasure (18%). **Conclusion:** Women in the study recognized the importance of family planning for the couple. The decision regarding the choice of contraceptive method often counted with the participation of the partner. Tubal ligation was the most chosen contraceptive method, and security method the main factor for their choice. In this sample of women, sexual and reproductive rights were exercised and recognized as a means to free choice of contraceptive methods, and greater freedom to experience their sexuality.

51 **Epidemiologic Situation and Factors that Contribute to the Resurgence of Pertussis in the State of Bahia.**

Leonardo De Melo Rodrigues, Anna Alzira Macau Furtado Ferreira, Máximo Peixoto Rocha Neto, Luiz Eurípedes Almondes Santana Lemos, Antônio Guilherme Chagas Silva Feitosa, Augusto César Evelin Rodrigues.

Introduction: Pertussis is an infectious disease caused by the bacterium *Bordetella pertussis*. In Brazil, since the establishment of the National Immunization Program in 1973, when the DTP vaccine passed to be recommended for children under 7 years, there was a decline in the incidence of pertussis. However, in recent years, its reemergence has been reported, especially in the state of São Paulo and Bahia. **Objectives:** To analyze the epidemiology of pertussis and the factors that contributed to the resurgence of the disease in the state of Bahia in the period 2011 to July 2013. **Methods:** This is a descriptive epidemiological study retrospective quantitative analysis with data from 2011 to July 2013 in the state of Bahia obtained by The Information System of Notification of Diseases (SINAN). **Results:** There was 2082 suspected cases of pertussis in Bahia in the analyzed period, with 445 (21.37 %) confirmed, 1432 (68.79%) discarded, 136 (6.53 %) ignored / white and 69 (3.31 %) inconclusive. Regarding the diagnosis of confirmed cases, 132 (29.66%) were by laboratory testing, 158 (35.51 %) by clinical epidemiological, 154 (34.61 %) by clinical criteria and 1 (0.22 %) with criterion for confirmation ignored / white. The age distribution has a higher incidence in children less than 4 years of age (66.29 %), and infants in the first year of life were most affected by the disease. Regarding gender, was found that 191 (42.92 %) of the confirmed cases were male and 254 (57.08 %) female. The months of first quarter of the year corresponds to the period of increased reporting of onset of first symptoms (40.67 %), followed

by months of last quarter. **Conclusion:** Pertussis presents a seasonal epidemiological profile (predominantly in spring and summer), coinciding with the 1st and 4th quarter. The diagnosis is based primarily on clinical presentation since the bacteria have difficulties to be laboratory isolated, requiring specific means that are not always available. Its reemergence may be associated with low sensitivity of the professionals in the early detection of the disease, especially in adolescents and adults, which do not have the typical and perceived symptoms as infants. Thus, the epidemiological situation reveals the need for urgent measures to prevent and control the disease, especially in the area of continuing education for health professionals.

52 Osmotic Demyelination Syndrome Not Related to Electrolyte Disturbances- Case Report.

Nara Livia Rezende Soares, Giuliano da Paz Oliveira, Fábio Freire José.

Introduction: The osmotic demyelination syndrome (ODS) is a demyelinating disease of the brain which primarily affects the region of the pons, but can also attack extrapontine regions. This syndrome is classically associated with rapid correction of chronic hyponatremia. However, the disease was also related to diuretic therapy, liver transplantation, alcohol consumption and malnutrition. The first symptoms are usually mutism and dysarthria. Lethargy and affective changes are also common and can be confused with psychiatric disorders. However, the classic symptoms of myelinolysis are spastic quadriplegia and pseudo-bulbar palsy. Neuroimaging, especially MRI, are essential for diagnostic confirmation of cases of ODS. A magnetic resonance imaging shows hypointense signal on T1 and hyperintense on T2. **The Case:** 47-year-old woman was admitted in the emergency room with psychomotor agitation, visual hallucinations, tremors and vomiting. She had a important history of alcoholism (a bottle of rum per day for 30 years). The entrance examination, patient dehydrated 2+/4+, pale +/4+, disoriented in time and space, respiratory frequency of 25 breaths per minute, SpO₂ = 88%; blood pressure 120x80mmHg, cardiac frequency of 150bpm, CBG = 78mg/dL, murmur systolic mitral and aortic 2+/6+; hepatomegaly 3cm of right costal. The initial diagnosis was delirium tremens, performed with intravenous crystalloid hydration and replenishment with thiamine. The next day, patient developed fever 39,5°C, productive cough and respiratory distress. Chest radiography showed opacity in the right hemithorax base. The initial empirical antibiotic regimen was ceftriaxone and clindamycin, but had to be scaled to meropenem three days later, when patient went into septic shock and *Pseudomonas aeruginosa* was isolated on culture of tracheal aspirate. After 12 days of hospitalization in ICU bed, patient was admitted to the infirmary. Neurological examination 15 points in Glasgow Scale, disoriented in time and space, mild dysarthria, quadriparesis with a proximal standard (strength grade IV in proximal upper limb, III in lower limb and V in the other muscle groups), tactile sensitivity and painful preserved, reflexes 2+/4+ overall, presence of dysidiadochokinesia and dysmetria bilaterally. MRI of skull showed lesions consistent with SDO. **Conclusion:** The ODS is a demyelinating disease that affects mainly the pons and is classically associated with rapid correction of chronic hyponatremia. We report a case of alcoholic patient developing ODS in the absence of electrolyte disturbances. Therefore, we emphasize the importance of the knowledge of risk factors involved in ODS, with the aim of preventing potentially serious neurological damage.

53 Diseases of Compulsory Notification and the Importance of Surveillance in Identification of Cases: Example of AIDS in Piauí, Brazil.

Brenna Rayana Castro Gondinho, José Valter Lopes Oliveira Filho, Lorena Rodrigues, Raíssa Barreto Vieira Soares, Cláudia Aline de Brito Oliveira, Brunna Verna Castro Gondinho.

Introduction: Diseases of Compulsory Notification are those that have a magnitude, severity, causative agent, transcendence, potential and ability to spread can cause outbreaks and epidemics thus requiring effective measures for its prevention and control. On January 25, 2011, the Ministry of Health of Brazil launches Ordinance No. 104, which among other things, defines the relationship of

diseases, injuries and public health events of compulsory notification throughout the national territory, among these diseases, is the Acquired Immune Deficiency Syndrome - AIDS. Through the Guide to Epidemiological Surveillance August 2002, the Brazilian Government, through its bureau of health, launches a set of criteria, explanations, recommendations and guidelines regarding the conduct to be adopted against some of these and other diseases, emphasizing the importance of epidemiological surveillance to identify cases of illness. **Objectives:** The objective of this paper is to highlight the relevance of Epidemiological Surveillance in identifying cases of notifiable diseases as a tool to support the operational level technical and managerial. **Methods:** Quantitative study, conducted through secondary data from the state of Piauí, Brazil; obtained through the website DATASUS. Investigated the cases of AIDS identified in the Brazilian state in question, considering a period of ten years from 1982 to 2012. **Results:** we found the following values: for the year 1982 n = 0, n = 13 for 1992 to 2002 n = 122 and n = 170 for 2012. **Conclusion:** Considering the methodology used during the research, there was an increase in the number of AIDS cases over the years, identified in the state of Piauí, Brazil, which may have a justification, among other things, how the Surveillance, at operational and technical management, was conducted within the state of Piauí taking into consideration your entire set of measures, standards, programs and guidelines that passed during the period studied by the three levels of government, avoiding this way, fewer cases of underreporting, as well as being increasingly discerning and engaged in following the recommendations provided by the Brazilian Ministry of Health, the respect to the Epidemiological Surveillance.

54 Knowledge of the Internal Jugular Vein Puncture for Central Venous Access in Human Cadaver.

Brenna Rayana Castro Gondinho, Lorena Rodrigues, Raíssa Barreto Vieira Soares, Sérgio de Abreu Vasconcelos Neto, Caio Victor Almeida Sampaio, Noelia Maria de Sousa Leal.

Introduction: The puncturing is a method which relies on the insertion needle, knife or other instruments for surgical procedures in cavities. The knowledge of venipuncture as central access road is of fundamental importance in surgical procedures, since this is a routine method in clinical practice. The internal jugular vein puncture is a procedure widely used as a central access road, associated with high success rates, by low rates of serious complications such as lesions in the pleura and the thoracic duct, compared to the subclavian vein. **Objectives:** This study aimed to correlate the theoretical and practical knowledge of human anatomy with the surgical puncture of the jugular vein, facilitating the visualization of anatomical landmarks for later this procedure in living. **Methods:** The practice was carried out in the laboratory of Anatomy, cadaver adult male, according to the Seldinger technique. Initially the common carotid artery was located and palpated, and the needle was inserted lateral to this artery and advanced toward the ipsilateral nipple. Then the syringe was disconnected, the guide wire was inserted into the vessel and the needle was withdrawn. Finally, the guide wire is surrounded by the dilator and after its removal was performed by catheter. **Conclusion:** Through this workshop it can be concluded that the correlation between theory and practice is essential to carry out the surgical technique for safely and correctly, thus minimizing the occurrence of complications can be avoided by knowing the topography of the structures.

55 Penile Metastasis of Prostatic Adenocarcinoma: A Case Report.

Dionline Borges Paulo, Bruna Rodrigues Barbosa, Lina Gomes dos Santos.

Introduction: Prostate cancer is the most frequently diagnosed cancer in men, especially in the elderly. Approximately 8% of all prostate cancers are diagnosed in advanced disease with distant metastases. Although rich vascularization and circulation complex organ, metastatic involvement of the penis is a rare event (0.3%). In these cases, patients have debilitating near terminal condition at presentation with a dismal prognosis. Usually the penile tissue invasion presents as single or multiple skin nodules over the prepuce, glans or the co-

ronal sulcus. Urethral ulceration, local obstruction, priapism, and severe penile pain have also been described. The most reliable method of diagnosis is biopsy, which allows to evaluate the degree of invasion. The treatment depends on the patient's general condition, location and extent of the primary tumor and the presence of distant metastases. We present an unusual case of penile invasion from prostatic adenocarcinoma. **The Case:** An 81-year-old man presented with respiratory complaints, in April/2012. Chest radiograph evidenced pleural effusion and pleural thickening, whose biopsy showed adenocarcinoma metastasis, confirmed by immunohistochemistry. The patient had urinary complaints with fever, dysuria and urinary obstruction. Rectal examination showed diffusely hardened prostate, PSA =108 ng/dl and blastic lesions in the column identified in bone scintigraphy. Transurethral resection of the prostate and bilateral subcapsular orchiectomy confirmed primary prostate cancer without testis invasion. Postoperatively, the patient developed headache and head computed tomography (CT) indicated secondary implant in the cerebellum. One year after diagnosis, the patient presented several ulcerated lesions and flat, the highest with 8.0 mm, affecting the glans and penile body, which histology study ratified metastatic disease. **Conclusion:** Treatment options for prostate adenocarcinoma with systemic metastasis include surgical, radiotherapy, hormonal ablation (orchiectomy) and / or chemotherapy. In cases of advanced disease, such as described here, is indicated palliative treatment aiming at improving quality of life in view of the poor prognosis (survival ranging from 1 to 24 months).

56 Genotypic Characterization by Epidemiological Variables of Patients with Hepatitis C Treated in a Referral Center in Teresina-PI.

Carolina Coelho Mello, Yara Vanessa Xavier, Felipe Ibiapina Correa, Ronaldo Modesto De Souza Filho, Lucas Garibald De Deus Sousa, Viriato Campelo.

Objectives: To study patients with hepatitis C genotype distribution according to age, sex and marital status. Hepatitis C is considered one of the most important infections today, affecting millions of people, in Teresina, no studies on this aspect of the epidemic. **Methods:** A descriptive, cross-sectional, quantitative. We collected information from medical records of patients located at CEME Center Hematology Teresina (HEMOPI) in the period from 2003 to 2011, totaling 334 cases, of which 171 contained genotypic information. We analyzed the following epidemiological variables: age group, sex and marital status. **Results:** We included 171 patients with genotype informed, 120 was male. The numbers of male patients with genotypes 1, 3, 2 were respectively 72, 43, 5. For females, representing 51 study patients, the numbers of genotypes 1, 3, 2 were respectively 30, 20 and 1. Analyzing the marital status, it was observed that the 171 records, only 94 informed the marital status of the patient. Of these, 65 were married, 21 singles, 4 widowed and 4 were divorced. Of the total of married patients were identified 39 genotypes of type, 24 type 3 and 02 type 2. Of total single patients, 11 were identified with genotype 3, 9 to 1 and only 1 patient with genotype 2. Widowed patient, 2 were identified with genotype 1, 1 with 2 and 01 to 3. Divorced patients, 3 had genotype 3 and 1 had genotype 1. With regard to age, patients were studied by age group and only 1 of the 171 had not informed the age. Patients under 20 years were only 2 with genotype 3, patients between 20-40 years, the frequency of genotypes 1 and 3 were 20 and 15, respectively, and only 1 with genotype 2. Of patients older than 40 years had 79 genotype 1, 48 type 3 and 05 genotype 2. There are six different subtypes and genotypes previously identified Hepatitis C virus (HCV). Research shows wide geographic variation in the distribution of genotypes, often even among geographic regions within the same country. In Brazil, the most common genotypes are 1 and 3. The findings of this study are consistent with the literature, since most prevalent genotypes were 1 and 3, regardless of gender, age and marital status of the patients. **Conclusion:** The choice and therapeutic response of patients with hepatitis C depends on the HCV genotype, with some genotypes more difficult to therapeutic success, which is why it is important to identify the HCV genotypes in a population. Among patients in assisted HEMOPI, males, age greater than 40 years and married are the most commonly infected, with the most common genotypes 1 and 3.

57 Characterization of Viral Load by Epidemiological Variables of Patients with Hepatitis C Treated in a Referral Center in Teresina-PI/Brazil.

Carolina Coelho Mello, Yara Vanessa Xavier, Felipe Ibiapina Correa, Lucas Garibald De Deus Sousa, Ronaldo Modesto De Souza Filho, Viriato Campelo.

Introduction: The hepatitis C virus was discovered only in 1989 and, like other hepatitis, has a worldwide distribution. In Brazil, it is estimated that there are about 3 million chronic carriers. The identification of the viral load through quantitative test is used as a predictor of response to treatment, as well as the duration of combined treatment with interferon and ribavirin. **Objectives:** To study patients with hepatitis C by viral load distribution according to sex, age and color. **Methods:** Descriptive, transversal and quantitative study. The information was obtained from medical records of patients treated at the Hematology Center of Teresina (HEMOPI) in the period 2003-2011, totaling 342 cases, 180 of which contained information about the viral load. We used the limit of 800,000 IU / ml to differentiate between high and low viral load. We analyzed the following epidemiological variables: sex, age and color. **Results:** Of the total 180 patients, 105 had low viral load, 56 had high viral load and 19 undetermined. Of these, 127 were male and 53 were female. The numbers of male patients with low viral load, high viral load and undetermined viral load are respectively 72, 39 and 16. For women, these values are, respectively, 33, 17 and 3. Of the 180, 172 had information about age. Of these, dividing them into three age groups, among people with 19 years, 3 had low viral load and none with high viral load or undetermined. Among people between 20 and 40 years, 25 had low viral load, 8 had undetermined and 7 high. But people with more than 40 years, 73 had low viral load, 46 high and 10 undetermined. Regarding the color, the 180 records, only 101 had information about the patients' color. Of these, 50 were of mixed ethnicity, 32 were black and 19 white. Among mixed ethnicity patients, 30 had low viral load, 17 high and 3 undetermined. Among black patients, 24 had viral load low, 5 high and 3 undetermined. Among white patients, 11 had low viral load, 7 high and 1 undetermined. **Conclusion:** Among patients assisted in HEMOPI, predominated those with low viral load, male, over 40 years and mixed ethnicity. High viral load was also more frequent in patients over 40 years. Regarding the color, it was observed that black-skinned people had the lowest rate of high viral load when compared to mixed ethnicity and white patients.

58 Case Report: Perianal Basal Cell Carcinoma.

Bruna Rodrigues Barbosa, Dionline Borges Paulo, Sabas Carlos Vieira, Vinícius Fontenele De Menezes, Lina Gomes Dos Santos.

Introduction: Anal canal carcinoma is uncommonly found and represents about 4% of all anorectal malignancies and 1.5% of gastrointestinal malignancies, affecting in its largely elderly. More often found in areas exposed to ultraviolet radiation, basal cell carcinoma (BCC) rarely affects the anorectal region. To our knowledge, until the year 2010, about 100 cases have been described in the literature, most of them in perianal region. The CBC perianal should be distinguished from basaloid squamous cell of perianal region due to be very similar because of the histopathologic standard between these neoplasms, with the latter has a greater ability to metastasize. We present a case of basal cell carcinoma in the perianal skin in elderly patient. **The Case:** CMSS, 78 years, female gender, history of pelvic radiotherapy for 20 years for cervical cancer, sought medical complaining of dysuria and urinary frequency. On pelvic examination there was colobada vaginal and perianal skin lesion measuring 3.0 cm. An incisional biopsy showed that it was infiltrative and pigmented BCC, confirmed after excision site of injury. **Conclusion:** Although rare, there has been an increase in the overall incidence of anal canal/perianal cancer, especially cultural changes that introduced several risk factors for the onset of the disease, such as viral infections (HPV, HIV), behavior promiscuous and smoking. The treatment of choice for anal canal/perianal CBC consists of local excision with clear margins, with or without the use of rotating skin flaps or skin grafts. In more severe cases, where there is a greater extent of the tumor, radiation and some plastic surgery procedures can be considered as options.

59 Nephrotic Syndrome Patients with Age Onset Below Two Years, Accompanied in Teaching Hospital in Northeastern Brazil- Series of Cases.

Brenda De Jesus Moraes Lucena, Gregory Ramon Bandeira Da Silva, Fabrizio Freitas Nunes, Lucas Vitor Rafael Da Silva Carvalho, Sâhâmia Martins Ribeiro, Catarina Fernandes Pires.

Introduction: The nephrotic syndrome (NS) is characterized by proteinuria, edema, Hypoalbuminemia and Hypercholesterolemia. The majority of cases occur from 2 to 7 years old. The NS diagnosis prior to two years old is uncommon and involves kidney damage from different causes, development and prognostic. **Objectives:** Discover the epidemiological traits of children diagnosed with NS until 2 years old hospitalized at HILP from 2006 to 2012; the clinical manifestations; average age of diagnosis and average duration of the disease; laboratorial alterations; histological types and complications. **Methods:** Retrospective descriptive study of a set of cases of children diagnosed with NS younger than 2 years old. The data was collected from medical records of HILP. **Results:** There were 55 records, from which 7 (12,7%) were diagnosed with the disease before 2 years old. The average age of diagnosis were 17 months. The majority of the patients were male (5/2 rate). The average duration of the disease were 5 years with standard deviation of 3 years. There was the dominance of the Caucasian race (57%) with 4/3 rate. Regarding the clinical manifestations all of them presented edema, 4 (57%) presented oliguria and (28%) showed HAS and hematuria. Regarding the proteinuria majority of values were higher than 40mg/ m2 (71,5%). Four (57%) had ureia values below 40, all had creatine levels below 1,3; total cholesterol levels were between 200 to 500mg/dl (42%); the majority albumin levels between 2 to 3g/dl (71,5%). Low damage was the histological dominant. Amidst the complications, the most frequent were infections in 5 cases (71%). **Conclusion:** The sample showed a dominance of males from Piauí countryside, of Caucasian race, with 17 months as the average age of diagnosis and edema as the most frequent symptom. There was a dominance of proteinuria above 40 mg/m2, normal levels of ureia and creatin, cholesterol levels from 500 to 800 mg/dl and Hypoalbuminemia between 2 and 3. The most common histological pattern observed were low damage and the most common complication were infection.

60 Iliopsoas Abscess: Case Report.

Gregory Ramon Bandeira Da Silva, Edson Santos Ferreira Filho, Ronaldo Modesto De Souza Filho, Flavio Willamis F Melo Junior, Fabrizio Freitas Nunes, Catarina Fernandes Pires.

Introduction: The acute and chronic pain in the hip are children's common complaints and may represent different diseases. Between them there is the iliopsoas abscess which, along with DRESS syndrome (drug rash with eosinophilia and systemic Symptoms), is rare in the pediatric age group. **The Case:** The cases are of iliopsoas abscess diagnosed at Children's Hospital Lucidio Portela (HILP) - Teresina-PI. Case 1 - Patient, male, 14 years, from Teresina-PI. Referred to HILP with fever, jaundice, arthralgia, dark urine and fecal hipocholia. Inflammation, osteomyelitis and hepatomegaly were suggested. Laboratorial tests were conducted for hepatitis, Epstein-Barr virus and antibodies to investigate Lupus Erythematosus, being all non-reactive. MRI showed compromised soft tissue of the left ileum, determining the diagnosis. Oxacillin therapy was established for 18 days. Patient developed skin rash, fever and diffuse exanthema. Medication was replaced by vancomycin for 12 days. At discharge, the patient was asymptomatic. Case 2 - Patient, age 8, male, born and raised in Batalha - PI. presented arthralgia in the left coxofemoral joint, limited gait, edema and evening fever. He was transferred to HILP already in use ceftriaxone and oxacillin. The patient was pallid with lymphadenomegaly at cervical chain and groin, pain at the touching of the lesser trochanter of the femur and limited extension of the lower limb. The iliopsoas abscess was diagnosed by magnetic resonance imaging of the hip. Traditional treatment was initiated with ceftriaxone and oxacillin. During the third week the patient had fever, vomiting and poor general condition. Presented non - pruritic rash and lymphadenopathy. The distinct eosinophilia and rash with the use of oxacillin indicated the possibility of DRESS syndrome. Oxacillin was

suspended and vancomycin were introduced alongside with dexchlorpheniramine, while ceftriaxone was held. The patient improved with the retreat of the symptoms and involution of the abscess. **Conclusion:** The DRESS syndrome develops two to six weeks after the drug introduction. There are reports of various trigger drugs, particularly sulfonamides and aromatic anticonvulsants. Lesions are the most common compromise. In this case, the episodes began in the third week, probably triggered by oxacillin, making the case reported even more peculiar.

61 Analysis of Electrocardiographic Pattern in Patients with Scleroderma.

Lucas Garibaldi De Deus Sousa, Jeânley Vieira Da Silva, Rayra Gomes Ribeiro, José Salomão Budaruiche, Maria Do Socorro Teixeira Moreira Almeida, Carlos Eduardo Batista De Lima.

Introduction: Cardiac involvement in patients with scleroderma is associated with higher mortality, being scarce information about electrocardiographic abnormalities in these patients. **Objectives:** To analyze the electrocardiographic pattern in patients with scleroderma. **Methods:** This cross-sectional observational study included consecutive patients with scleroderma diagnosis from June 2008 to May 2013 at Hospital Getúlio Vargas in Teresina-PI, in accordance with the terms of the consent protocol approved by the ethics committee under number 23111.014057/2013-67. The electrocardiographic patterns were characterized according to the recommendations of the Brazilian Society of Cardiology. **Results:** We analyzed 46 patients among 58 patients with scleroderma diagnosis. In 11 cases the electrocardiogram (ECG) was normal and abnormalities were found in 19 patients. The ECG was unavailable in 16 records. The 30 patients evaluated with ECG were predominantly female (96.6%) and ECG was abnormal in 63.3%. Some electrocardiographic abnormalities observed were of little value, like heart rate increase or decrease, sporadic premature beats and slight ST depression. Sinus tachycardia was observed in 4, sinus bradycardia in 2 and ventricular premature beats in 2 patients. In 4 cases (13.3%) slight ST depression was present and in 10 patients (33.3%) conduction disorders were found, including A-V block, right bundle branch block, left anterior hemiblock and bifascicular block. In 8 patients (26.6%) Q or QS aspects suggesting myocardial necrosis were found. These abnormalities should be due to progressive replacement of myocardium by fibrous tissue in scleroderma patients. **Conclusion:** The prevalence of ECG abnormalities in this population of patients with scleroderma was high. The most prevalent electrocardiographic abnormalities observed were conduction disorders and fibrosis areas. These findings suggest the importance of cardiac evaluation of these patients.

62 Antiedematogenic Effect of Monoterpene Myrtenol in Rats.

Benedito de Sousa Pereira Neto, Dionline Borges Paulo, Brunna Rodrigues Barbosa, Francisco de Assis Oliveira.

Introduction: Essential oils are complex mixtures, obtained from plants and pleasant aroma. They consist mainly of monoterpenes, sesquiterpenes and aromatic derivatives, have different biological activities. **Objectives:** To evaluate the potential of the monoterpene anti-edematogenic myrtenol in paw edema by carrageenan (Cg), histamine and serotonin. **Methods:** We used male Wistar rats (n = 6/group) (CEAA No. 008 / 12). Cg -induced edema in the animals orally treated with vehicle (Tween 80,2%, 10 ml/Kg), myrtenol (12.5, 25 and 50 mg/kg) and indomethacin (10 mg/kg) 60 min before administration i. pl. Cg (1%, 0.1 mL) in the right hind paw. The paw volumes were measured (mL) per plethysmometer (Insight ®) at times 0 (to), 1, 2, 3, 4 and 5 h after application of Cg. In the paw edema by histamine or serotonin, the animals were pretreated orally with vehicle, myrtenol (12.5, 25 and 50mg/kg) or cyproheptadine (10 mg/kg). After 1h received 0.1 mL of histamine or serotonin (1 mg/mL) into right hind paw (i.pl.). After 1h, the paw volumes were measured by plethysmometer and results expressed in mL. The results (mean ± SEM) were compared by ANOVA and Tukey post- test. The level of significance was set at 5% (p<0,05). **Results:** Myrtenol (25mg/kg) suppressed (p<0,05) Cg -induced edema observed at all time: 1h (47%), 2h (40%), 3h (52%), 4h (58%) and 5h (65%). The dose 50 mg/kg reduced the edema in the 1st and 2nd hours (44%, 45%, respectively). Indomethacin, standard drug, reduced

edema formation from 1st to 5th hour of observation. The dose of 25 mg/kg myrtenol was able to inhibit significantly ($p < 0.05$), histamine paw edema in 82% compared to the vehicle group. The animals treated with cyproheptadine, standard drug showed decreased edema by 88% with reference to the vehicle group. In the paw edema model for serotonin, myrtenol at doses of 12.5 and 25 mg/kg (po) was effective ($p < 0.05$ and $p < 0.01$, respectively) in reducing edema with percentage around 35% and 61%, in that order, when compared to the vehicle group. Cyproheptadine, standard drug, reduced the edema by 72% with reference to the vehicle group. **Conclusion:** The results obtained provide evidence that the myrtenol possesses anti-inflammatory and suggest that this effect is related to the inhibition of mediators present during the acute phase of the inflammatory process. Studies are underway to determine the mechanism of action of this monoterpene.

63 Effect of the Gallium Arsenide Laser in the Treatment of Burns Caused by Chemical Hydrochloric Acid: An Experimental Study.

Paulo Davi Ferreira da Silva Oliveira, Tainá Vaz Moura, Manoela Carine Lima de Freitas, Anderson Mendes Garcez, João Bosco Parentes Vieira, Maria do Carmo de Carvalho e Martins.

Introduction: The burns are among the principal external causes of death registered in Brazil, losing only to traffic accidents and homicides. **Objectives:** To evaluate the influence of gallium arsenide laser on repair of chemical burns caused by hydrochloric acid in rats. **Methods:** Experimental study using Wistar rats (226.85 ± 19.89 g), males, adults were randomly divided into groups of six animals subjected to the following treatments: 1. applying laser off (control), 2. low power laser therapy (J 5) 3. High-power laser therapy (10J), 4. Application of silver sulfadiazine ointment (default) 5. Combination of standard treatment with 5 J laser; and 6. Combination of standard treatment with 10 J laser. The burns were produced by topical application of 1 N hydrochloric acid under anesthesia with 40mg/kg ketamine and 5mg/kg xylazine intraperitoneally. The irradiation with Gallium Arsenide Laser (wavelength of 830 nm) was initiated immediately after the production of a third degree burn and performed for 14 consecutive days. Euthanasia was performed by intraperitoneal overdose administration of sodium pentobarbital (100 mg / kg). Skin fragments with a margin of 1 cm of intact skin around the lesion were recorded for analysis. Histopathologic evaluation was done blindly with respect to treatment. Work approved by the Ethics Committee of NOVAFAPI (opinion No. 0025/11). **Results:** Reepithelialization and formation of granulation tissue was observed in all animals treated with laser of low and high power, and the presence of fibrin in 88.3% of cases. The treatment with silver sulfadiazine has resulted in the formation of granulation tissue in all animals and reepithelialization and presence of fibrin in 66.6% of cases. In groups subjected to combined treatment of low or high power laser with standard treatment (silver sulfadiazine) was observed reepithelialization, formation of granulation tissue and presence of fibrin in 100% of the lesions. Furthermore, the groups submitted to the combined treatment (silver sulfadiazine and laser therapy) showed better tissue repair, considering that had lower proportions of lesions with edema and secretion. **Conclusion:** Laser therapy was effective as an auxiliary resource in the treatment of third-degree chemical burns caused by contact with hydrochloric acid.

64 Effect of Administration of Ethanol and Energetic Drink on Hepatic Function, Antioxidant Activity, Lipid Profile and Lipid Peroxidation in Rats.

Anderson Mendes Garcez, James Frederico Rocha Pacheco, Manoela Carine Lima de Freitas, Lucas Lemos Silva Maia, Maria do Carmo de Carvalho e Martins, Paulo Humberto Moreira Nunes.

Introduction: The combined consumption of alcoholic beverage with energetic drinks has grown, but there are divergences about the interactions between the components of these combinations and its impacts on physiological parameters. **Objectives:** To evaluate the effect of the use of ethanol and energetic drink on hepatic function, antioxidant activity, lipid profile and lipid peroxidation in rats. **Methods:** Four groups of 7 male Wistar rats were treated p.o. for 30 days with NaCl 0,9% (Control-C), ethyl alcohol (1 g/kg-A), energetic drink (7 mL/kg-E)

or ethanol+energetic drink (AE). Evaluated parameters: body weight, serum level of alkaline phosphatase (AF), alanine-aminotransferase (ALT), aspartate aminotransferase (AST), total protein(TP), albumin(Alb), bilirubin (Bb), total cholesterol (TC), HDL-cholesterol and triglycerides; plasmatic malondialdehyde (MDA), liver weight, non-protein sulfhydryl groups (GSHNP), MDA and catalase activity(CAT) on hepatic tissue. Statistical analysis: ANOVA and Tukey's test. The experimental protocol was approved by the CEEA/UFPI-085/12. **Results:** AF level were lower ($p < 0.05$) in E(94,0±15,5) when compared to C(159,6±16,9), but not when compared to A(157,8±18,6) and AE(140,3±8,1). Direct Bb level were higher ($p < 0.05$) in AE(0,4±0,03) compared to E(0,27±0,002), while indirect Bb level in A(0,042±0,003) were higher ($p < 0.05$) than C(0,027±0,002) and AE(0,028±0,003), and total Bb level (0,75±0,03) were higher ($p < 0.05$) when compared to C(0,59±0,03). GSHNP in AE(279,3±13,1) were higher ($p < 0.05$) than C(230,5±21,8), E(223,5±15,2) and A(202,7±15,5). ALT in AE(66,0±2,7) were higher ($p < 0.05$) than E(49,0±4,9). CT(90,8±7,1) and LDLc(48,9±8,2) in AE were higher ($p < 0.05$) than C(CT: 63,65±4,72; LDLc: 23,45±3,89), without differences among A(CT: 76,69± 2,94; LDLc: 23,45±3,89) and E(CT: 72,70±6,22; LDLc: 38,72±7,99). The gain weight was lower ($p < 0.05$) in A(41,0±6,7) when compared to C(52,57±4,47), without differences among C, E(61,25±8,03) and AE(67,0±5,7). There were no difference between the groups for AST, TP, Alb, MDA, HDLc, triglycerides, CAT and relative liver weight. **Conclusion:** The combined use of alcoholic beverage with energetic drinks didn't change lipid peroxidation in plasma or in hepatic tissue, but produced an increase in the cholesterolemia and reversal of weight loss ethanol-induced. The increasing in GSHNP indicates that the combined consumption of these beverages seems to contribute to increase antioxidant activity in the liver.

65 Effect of Aqueous Avocado (*Persea Americana*) Seed Extract in Wistar Rats Submitted to Renal Ischemia and Reperfusion.

Antonio Cheslem de Souza, Laio Santana Passos, Leonardo Lino Martins Júnior, Ronaldo Luz Souza, Maria do Carmo de Carvalho e Martins, Paulo Humberto Moreira Nunes.

Introduction: Ischemia is involved in pathogenesis of 72% acute tubular necrosis cases, an important cause of acute kidney injury. The avocado (*Persea Americana*) seed is used in folk medicine to treat various kidney diseases. However, studies evaluating this kind of protective action against renal ischemia were not found. **Objectives:** Evaluating the effect of aqueous extract of avocado seed (AEPA) in Wistar rats submitted to renal ischemia-reperfusion. **Methods:** Adult male Wistar rats (255±15g) were randomly divided into four groups of seven animals each and subjected to the following treatments daily, by gavage, beginning 21 days before the procedure of renal ischemia: distilled water 5mL/kg (sham-operated and ischemia untreated-IU groups) or AEPA 500 mg/kg (AEPA500) or 1000 mg/kg (AEPA1000). On day 22, animals underwent laparotomy, location and bilateral clamping of renal arteries for 50 min and, then, reperfusion for 48 h and subsequent blood sampling for measure levels of serum creatinine and blood urea nitrogen (BUN). Sham-operated group underwent the surgical procedure up to the locating arteries step, without clamping. After euthanasia, kidney samples were collected for quantification of non-protein sulfhydryl (NP-SH) groups, malondialdehyde (MDA) and catalase activity (CAT). Statistical analysis was performed using one-way ANOVA followed by Tukey's multiple-comparison post-test. Significance level: $p < 0.05$. Study was approved by CEP/UESPI-024/13. **Results:** BUN levels were lower ($p < 0.001$) in AEPA500 (44.0 ± 2.7), AEPA1000 (47.6 ± 4.8) and Sham-operated (43.4 ± 1.7) when compared to IU (97.7 ± 16.5). Serum creatinine levels were lower ($p < 0.05$) in AEPA1000 (0.69 ± 0.1) when compared with IU (0.96 ± 0.1), but not when compared to Sham-operated (0.64 ± 0.0) and AEPA500 (0.8 ± 0.1). NP-SH levels were higher ($p < 0.001$) in IU (92.0 ± 1.9), AEPA500 (84.4 ± 3.5), AEPA1000 (79.7 ± 2.5) when compared to Sham-operated (63.0 ± 1.9) and lower ($p < 0.01$) in AEPA1000 when compared to IU. CAT was lower ($p < 0.05$) in IU (26.5 ± 5.4) when compared to Sham-operated (39.7 ± 3.3), with no difference ($p > 0.05$) between AEPA500 (29.1 ± 2.3) and AEPA1000 (32.8 ± 2.9) when compared to Sham-operated or IU. There was no difference among groups in MDA. **Conclusion:** Ischemia and reperfusion decreased renal function and aqueous avocado seed extract prevented this effect by a mechanism that seems to involve antioxidant activity.

66 Lipid Profile and Body Fat Mass of Chronic Renal Patients on Regular Hemodialysis.

Luan Arnon De Melo Cunha, Anderson Mendes Garcez, James Frederico Rocha Pacheco, Laís Lima de Castro, José Tibúrcio do Monte Neto, Maria Do Carmo De Carvalho e Martins.

Introduction: Chronic kidney disease (CKD) patients have mortality from cardiovascular disease (CVD) 10 – 30 times greater than the general population. CVD is attribute to risk factors, such as hypertension, diabetes mellitus and dyslipidemia, among others. **Objectives:** Evaluate the lipid profile and the body fat percentage of kidney patients on regular program of hemodialysis (HD). **Methods:** Cross-sectional study with a sample consisting of 103 CKD on HD and no clinical complications seen in a dialysis clinic in Teresina/PI. The total cholesterol (TC), HDL-C, LDL-C e triglycerides (TG) performed in a clinic HD were compared with reference values of the IV Brazilians Guidelines on Dyslipidemias and Prevention of Atherosclerosis. The body fat percentage (% BF) was determined by Bio impedance (BIA) and sum of skinfolds thickness (Σ ST). Skinfold thickness subscapular, supra iliac, triceps, biceps, and waist circumference (WC) were measured. The fat percentage by skinfold measure was calculated by the equation of Siri. The Pearson correlation coefficient and the chi-square test were used to test relationship between variables. The Ethics committee on research of UFPI approved this study. **Results:** The mean values for TG e CT were respectively 159, 96 \pm 78, 37 mg/dL and 161, 66 \pm 41, 48 mg/dL. It was observed that 48, 1% of patients had serum TG > 150 mg/dL and 20, 4% of a patients had a TC > 200 mg/dL. The mean serum LDL - C e HDL - C were 93, 5 \pm 35, 0 mg/dL and 36, 2 \pm 10, 7 mg/dL, respectively. LDL > 160 mg/dL were observed on 4, 9% of patients, and low levels of HDL (men < 40 mg/dL and women < 50 mg/dL) and 76, 7%. The %BF obtained by Σ ST was 39, 6 \pm 15, 6%, while that obtained by BIA was 27, 4 \pm 10, 9%. The proportions of patients with increased %BF determined by Σ ST e BIA were respectively 76, 7% and 75, 7%. The mean WC was 90, 8 \pm 12, 7 cm, measures being found increase (men > 102 cm e women > 88 cm) in 28, 2%. There was no statistically significant correlation between serum lipid levels and %BF. **Conclusion:** CKD patients evaluated has reduced levels of HDL-C and increased TG, presenting atherogenic and dyslipidemic profile. This profile was not associated with central adiposity or fat percentage.

67 Gliomas Profile in Hospital São Marcos, Teresina-PI Analysis of 42 Cases by the “Núcleo de Tratamento de Tumores Encéfalo Medulares”.

Brenno Ivo Soares Santos, Martinho Gabriel Lima Nunes, Vitor Nunes Santos, Luiz Henrique Carvalho dos Santos, Thalysson Brenno Ferraz e Souza, José Nazareno Pearce de Oliveira Brito.

Introduction: Gliomas are the most common primary brain tumors. They can be originated from astrocytes, oligodendrocytes and ependimocytes. The high-grade gliomas are the most frequent and, among them, the multiform glioblastoma raises. The low-grade gliomas are not so common, representing 8 to 15% of the gliomas in adults. The low-grade glioma is a neoplasm with a considerably better prognosis than anaplastic astrocytoma and multiform glioblastoma. The glioblastoma (grade IV) is the most aggressive type of glioma. The brain etiology remains unknown. **Objectives:** Perform an analysis of the profile of histopathologically diagnosed gliomas cases in Hospital São Marcos, Teresina-PI. **Methods:** All the brain tumors patients who underwent surgery in Hospital São Marcos (Teresina-PI) from 2010 to 2012 with histopathological diagnosis of glioma had their histopathological report analysed by the “Núcleo de Tratamento de Tumores Encéfalo Medulares” from this hospital. All data were collected just after patients or responsible relative authorization. In this present retrospective transversal analytic study, the sample corresponded to 42 distinct cases from patients with glioma. **Results:** Among the 42 cases of glioma evaluated, 28 had like cellular origin as astrocytes, 1 as oligodendrocytes, 7 as ependimocytes and 6 had no cellular origins described in the histopathological report. About the degree of malignancy, there were: 9 low-grade astrocytomas and 19 high-grade; 2 low-grade ependymomas and 5 high-grade; 1 high-grade oligodendroglioma and none high-grade. **Conclusion:** The

most part (2/3 cases) of gliomas analysed had like cellular origin as astrocytes (astrocytomas); half of the analysed cases from astrocytomas were classified like grade IV (multiforme glioblastoma). Gliomas (astrocytomas, oligodendroglioma, and ependymoma) classified like high-grade malignancy were the most incidents.

68 Deceased Donor Profile for the First Liver Removals for Transplantation in Piauí State.

Kelly Danielle Silva Vieira, Miguel Augusto Arcoverde Nogueira, Carlos Renato Sales Bezerra, João Gilson De Jesus Cantuário, Evda Duarte Feitoza De Sousa Guimarães, Wellington Ribeiro Figueiredo.

Introduction: In the current days, liver transplantation is considered as one of the major procedures of modern surgery and the first line treatment for a series of chronic and end-stage liver diseases. Due to the increasing demand of organs for transplantation, several strategies were created to rise the number of donations as specific laws, collecting regulation, distribution and preservation of the organs. The introduction of encephalic death concept, donation promotion, better identification and more wide criteria for selecting potential donors also collaborated to hepatic transplantation be established as a safe and efficient treatment modality. **Objectives:** This study has at its general objective to characterize the profile of deceased donors involved in the first liver removals for transplantations performed at Piauí State, and as specific objectives to identify profile related variables that attributes quality to the organ removed, as age, gender, encephalic death cause, length of ICU stay, whether there was cardiac arrest or not, serum levels of creatinine and sodium, use of vasoactive drugs, infectious diseases tests and organ destination after removal. **Methods:** It is a retrospective, documental, descriptive with a quantitative approach research, performed at Transplantations Central of Piauí, involving a total of 13 patients with encephalic death submitted to liver removal, from September 2000 to June 2013. Data was collected using a specific formulary during the analysis of patient record files archived at Transplantation Central of Piauí. **Results:** The results showed that donors had a mean age of 33.15 years, were most of the times females, there was an equal occurrence of traumatic brain injury and stroke of the hemorrhagic type, showed no cardiac arrest, were in ICU for at least 5 days used vasoactive drugs, levels of sodium in the average of 155 mEq/L and creatinine in the range of 1, 55 mg/dL. Serology had not contraindicate donation receivers organs selected and were sent most of the time to Fortaleza (CE). **Conclusion:** Donors have similarity with the profile national donors (ABTO) and satisfactorily meet the demand of potential recipients, when they are identified variables that can optimize the uptake organs. The study presents itself as a pioneer by highlighting the current status of the program of hepatic uptake of Piauí State with documentation of the implementation team removal liver.

69 Profile of the Deceased Kidney Donor in the State of Piauí, in Period of 2000 to 2010.

Evda Duarte Feitoza De Sousa Guimarães, Kelly Danielle Silva Vieira, Carlos Renato Sales Bezerra, Miguel Augusto Arcoverde Nogueira, João Gilson De Jesus Cantuário, Wellington Ribeiro Figueiredo.

Introduction: The deceased renal donors are determined according to fixed control criteria and specific legislation that regulates the identification, evaluation, maintenance of the possible donor and brain-death diagnosis, family consent, removal and distribution of the organs and tissues, transplantation and the results follow up. The characterization of the deceased renal donor profile in the state of Piauí provides useful information to determine new measures that aim a better use of the organs. Out of the criteria defined for the ideal donor, the characteristics highlighted in this research were: 40 years of age, not being ethnic African American, having serum creatinine of 1.0 mg/dL, death not regarding cardiorespiratory arrest, being 170 cm high and weight \geq 80 kg, death regarding encephalic-death, being seronegative for HCV. **Objectives:** This research aimed to identify the profile of the deceased renal donor in the state of Piauí from September 2000 to June 2010, to establish the relation between

the deceased donors in the state of Piauí and the national donors based on the criteria for ideal donor. **Methods:** It was a descriptive, retrospective, quantitative research carried out at the Center of Transplantation in Piauí. A study on the number of all deceased renal donors in Piauí from September 2000 to June 2010 was made. The sample consisted of sixty-six donors. The data were collected through a form. **Results:** The results showed most donors are pardo, 34 years of age, 64kg weight, 163 cm height, on average. Their encephalic death happened due to stroke and traumatic brain injury, serum creatinine levels in the acceptable range for donations and seronegative. **Conclusion:** It could be concluded the donors have similar characteristics to the national ones, none were regarded as ideal donor, however, they are excellent renal grafts that fit the receptors' needs.

70 Giant Intra - Abdominal Lymphangioma In Childhood: A Case Report.

Natália De Sampaio Brandão, Laís Batista De Andrade, Karla Nobre Alves, Adolfo Batista De Sousa Moreira, Fernanda Vasconcelos De Carvalho, Edinaldo Gonçalves De Miranda.

Introduction: Intra -abdominal lymphangioma is a rare pathology, ranging from 1:23,000 to 1:120,000 of pediatric hospital admissions. This cystic tumor has come to be considered the rarest abdominal tumor in children. Its etiopathogenesis remains elusive, sometimes being interpreted as a lymphatic malformation. There are no pathognomonic signs and symptoms of lymphangioma, which may present as non-specific abdominal symptoms; incidental finding and acute abdomen. It's worth pointing out that when there is increased abdominal size, it is slow and progressive, and in some cases it is thought to be ascites. The preoperative diagnosis is facilitated using US, CT, and MRI. Surgical resection is the treatment of choice and prognosis is generally good. **The Case:** ABDSS 5 years, admitted with abdominal distension for about 1 and a half years; complained of intermittent abdominal pain and vomiting. On physical examination, the abdomen was distended, soft, painless on palpation, with positive bowel sounds without visceromegalies, with decubitus mobile solidity and positive flick. The imaging investigation showed: US- cystic mass in the abdominal cavity measuring 14.6 x 11.2 x 9.5 cm, with some internal septations, CT - showing large mass, density of liquid, measuring 19,5 x 8, 4x19, 1, unilocular, thin-walled, extending from the right hypochondrium to hypogastrium. The patient underwent a laparotomy with the finding of mesenteric cyst about 22 cm in diameter in the jejunal loop; a 10 cm strap resection was carried out with the removal of the cyst block and the enteroterminal end. Histopathology showed cystic lymphangioma. The patient recovered uneventfully and was discharged on the 6th postoperative day. **Conclusion:** This report shows a rare case of giant abdominal cystic lymphangioma, which was successfully conducted. We emphasize the importance of differential diagnosis in the presence of any abdominal cystic mass.

71 Giant Intracranial Aneurysm in 4 Years Old Child: Report of a Case

Pablo Dantas Alencar, Roberlanny de Araújo Aragão, Isânio Vieira Sousa Lopes, Clara Linda Correia Lima Alencar, Benjamim Pessoa Vale, Francisco José Alencar.

Introduction: Intracranial aneurysms are rare vascular alterations in childhood, present in 0,17 to 4,6% of patients who underwent surgeries related to aneurysm treatment. Only 5% of aneurysm cases in children are diagnosed before they reach 5 years. However, this is the main cause of spontaneous subarachnoid hemorrhage during childhood. The clinical picture of aneurysm can be a result of subarachnoid hemorrhage or mass effect, which implies in neurologic deterioration. Most of the aneurysms in childhood are giant, whose dimensions are bigger than 2,5cm. The computed tomography of the cranial base confirms the diagnostic of subarachnoid hemorrhage, which identifies the localization and extension of the hemorrhage, and also finds Hydrocephalus when it is present. Magnetic resonance angiography or arteriography are essential for the confirmation of the diagnostic on aneurysm and therapeutic guidance. Aneurysm treatment can be done through either surgery with microsurgical

clamping or endovascular embolization. We have related the case of a four years old boy with a giant cerebral aneurysm. **The Case:** S.H.S.O., four years old, male, admitted in a remarkable pediatric hospital with irritability, headaches and vomiting in the first month of admission. The clinical picture developed to a decrease in the level of consciousness and fever. It was identified a systolic murmur in the mitral focus and it was first treated as bacterial endocarditis, but it became more serious, presenting seizure and intracranial hypertension signs. A Computed tomography of the cranial base was done and it identified subarachnoid hemorrhage with hem ventricle and Hydrocephalus, which underwent a ventricular external shunt in order to treat the intracranial hypertension. After recovering from the infection, a peritoneal ventricular derivation was conducted on the patient and a Magnetic resonance angiograph was done with him, which diagnosed a giant aneurysm at the level of the basilar artery. The child was transferred to the hemodynamic section for the endovascular embolization treatment with platinum microcoil, which was uneventful and with a good development. Now, ten years later, the child has no problems concerning this experience. **Conclusion:** Although rare, the intracranial aneurysm must be investigated in cases of subarachnoid hemorrhage and the performance of the magnetic resonance angiograph can confirm the diagnostic. In this case, the endovascular embolization obtained a therapeutically good result and prognostic, once the clinical suspicion and the correct previous diagnostic were essential for the success of this procedure.

72 Case Report: Pseudoachalasia.

Maria Clara Fortes Portela Barbosa, Antônio Moreira Mendes Neto, Jéssica Gomes Baldoíno Araújo, Eduardo Antônio Coutinho de Araújo Chaves Filho, Hydson Robério de Almeida Pinto, Antônio Moreira mendes Filho.

Introduction: Pseudoachalasia or secondary achalasia is a rare disease, possessing clinical and radiological characteristics and manometric often indistinguishable from achalasia. The most common causes are tumors of the gastroesophageal junction or distal esophagus. However, it has been reported that mediastinal or metastatic lesions located on the GEJ carcinomas originating from lung, breast, pancreas, uterus and prostate may lead to the development of the disease. **The Case:** Female patient, 51 years old, complaining of dysphagia for solids for four months, and weight loss of 8kg this period. Had performed endoscopy (EGD) is not documented with photos who diagnosed mild antral gastritis, due to worsening of symptoms to our service. We ask that esophageal manometry was consistent with achalasia, and esophagogram, whose report was suggestive of malignancy. We perform video endoscopy revealed a vegetating lesion infiltrating and not transposable in that topography. Laparotomy demonstrated a lesion unresectable being chosen palliative treatment. **Conclusion:** This case illustrates the importance of having a well documented endoscopic examination before making up esophageal manometry, especially in cases of progressive dysphagia.

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ORAL Presentations:

MEDICAL SCIENCES

01 Cycle Ergometer Exercise Test in Patients with Heart Failure and Preserved Ejection Fraction.

Serban Schiau, Calin Schiau, Gabriel Cismaru, Dumitru Zdrenghea

Introduction: Peak oxygen consumption (VO₂max) is one of the strongest predictors of survival in patients with chronic congestive heart failure (CHF), but it is unavailable in most practices. Prediction formulas are available for VO₂max using sex, NYHA functional class, peak heart rate and estimated metabolic equivalents (METs). **Methods:** In a retrospective analysis, 54 patients with heart failure were evaluated by treadmill test. Fourteen of them presented heart failure and preserved ejection fraction (mean EF=54,3%). They were split in 2 groups according NYHA class and compared in terms of exercise capacity. The mean age was 60,1 +/-7,6 years, they were 8 females, mean accomplished watt was 82 +/- 22.8 W, the heart rate during maximal effort was 110 +/- 23 bpm; the blood pressure during maximal effort was 186 +/-18 mmHg. According to NYHA classification they were 8 patients in NYHA II class and 6 patients in NYHA III class. **Results:** The cycle ergometer test in patients with heart failure and preserved ejection fraction showed good correlation between NYHA class and calculated VO₂max (r=-0.66 and p<0.01) and also between NYHA class and maximal heart rate during effort (r=-0.626; p <0.05). There was no significant difference between NYHA class II and III patients in terms of accomplished Watt or blood pressure during maximal effort but there was a significant difference in terms of maximal heart rate during effort (p < 0.05), and VO₂ max (p<0.01) between NYHA II and NYHA III. **Conclusion:** Peak oxygen consumption can be directly obtained using cardiopulmonary exercise tolerance testing or indirectly using METs derived formulas. The treadmill exercise test is well tolerated by patients with heart failure and preserved ejection fraction and differentiates between NYHA classes II and III.

Key words: Congestive heart failure, peak oxygen consumption.

02 Comparison of a Short- With a Long-Passive Phase Head-Up Tilt Test.

Nicholas Kormos, Izabela Lazar, Dana Pop, Dumitru Zdrenghea

Introduction: Head-up tilt test (HUT) is widely used to investigate unexplained syncope. However, in clinical practice it is time consuming and sometimes not well tolerated by the patient. The aim of this study was to compare the sensitivity of a short with a long- passive phase HUT. **Methods:** Thirty two patients with a history of vasovagal syncope (VVS) were randomized to a short-protocol passive phase HUT (group 1) consisting of 20 minutes passive tilt followed by 20 minutes after the administration of sublingual trinitrate of glycerol or a long-protocol passive phase HUT (group 2) where trinitrate was given 40-minutes after tilt and observed for 20 minutes. **Results:** They were 50 patients tested by HUT. In 7/30 patients from group 1 and 10/16 patients from group 2, syncope occurred during the passive phase (23,3% versus 62,5%; p<0,001). Prolongation of the passive phase in the long-protocol group from 20 to 40 minutes positivized 3 more tests. Overall, after the finalization of the active phase in group 1: 30/35 patients had a positive HUT compared to 16/21 patients in group 2 (85,7% versus 76,2%; p=NS). Time to positivity was shorter in group 1. **Conclusion:** HUT with a shorter passive phase was not inferior to the longer passive phase regarding positivity after finalization of both passive and active phase. Furthermore, the shortened HUT protocol allowed faster diagnosis.

Key words: Head-up tilt test, passive phase, vasovagal syncope.

03 Is There a Link Between Thyroid Function and Insulin Resistance in Euthyroid Women with Polycystic Ovary Syndrome?

Grigorina Mitrofan, Alice Albu.

Introduction: Polycystic ovary syndrome (PCOS) is frequently associated with insulin resistance (IR). Few studies showed a high prevalence of hypothyroidism and autoimmune thyroiditis in PCOS patients, but there are limited data concerning the impact of thyroid function on IR in PCOS euthyroid women. In this context our aim is to investigate the relation between thyroid function an IR in PCOS euthyroid women. **Methods:** We performed a cross-sectional study which included 183 PCOS patients diagnosed in Elias Clinic of Endocrinology between January 2011-January 2013. They were selected based on Rotterdam criteria. HOMA-IR>2,77 was used to indicate insulin resistance. The comparison between groups (IR and non-IR) for the quantitative variables was done using the Mann-Whitney test. The logistic regression was applied for variables adjustment and ROC curves for threshold determination. **Results:** The PCOS patient with IR had significant higher values for serum TSH (p<0.007), body mass index (BMI) (p<0.001), waist-hip ratio (WHR) (p<0.001) and waist circumference (WC) (p<0.001) than non-IR patients. The association between TSH and IR remained statistically significant after adjusting for BMI, WHR and WC. The ROC analysis identified a threshold value of 1.722 for TSH as a marker for IR, which offers the best compromise between sensitivity (54.29 %) and specificity (63,33). For TSH the area under the curve (AUC) was 0.62 (CI: 0.54-0.696), smaller than the AUC for BMI (AUC: 0.846; CI:0.781-0.898), WC (AUC: 0.849; CI: 0.784-0.901) and WHR (AUC:0.759; CI:0.685-0.823), indicating a lower predictive value for TSH than the other parameters. **Conclusion:** Our study demonstrated that although there is a relation between the serum level of TSH and the presence of IR in PCOS euthyroid women independent of anthropometric indices, the value for TSH as a predictor of IR is lower than the value of the other parameters.

Key words: Polycystic ovary syndrome, insulin resistance, TSH, ROC analysis.

04 Radial Versus Femoral Artery Cannulation for Hemodynamic Monitoring. A Prospective Comparative Study.

Timea Kincso Szabo, Elena Vânturache, Cristina Oana.

Introduction: There are few studies to compare hemodynamic minimally invasive monitoring modalities. The aims of the study were to compare the complications rate during insertion, maintenance, and withdrawal of arterial catheters, and to compare the number of catheters, the number of attempts and sites for insertion, as well as the period of arterial catheterization using the Vigileo and PiCCO systems. **Methods:** We conducted a prospective observational study that included two groups of critical care patients requiring arterial access. This observational study did not interfere with clinical decisions regarding treatment and the technique was chosen according to the attending physician's choice. The Vigileo group (Vigileo, Edwards Lifesciences) included patients in which radial artery cannulation was achieved by direct/indirect technique (20 patients). The PiCCO group (PiCCO, Philips) included patients in which femoral artery cannulation was achieved using the Seldinger technique (11 patients). Two resident physicians observed the patients daily to detect complications, and recorded the number of catheters used for insertion, the number of attempts and sites used to achieve arterial cannulation, as well as the period of arterial cannulation in each patient. **Results:** The two groups were similar regarding the severity of the disease and organ dysfunction. There were 3 minor complications in the PiCCO group- 27.27% (one venous puncture and two accidental displacements) and 6 minor complications in the Vigileo group-30%

(one transient pulse loss due to vasospasm, two local hematomas and 3 accidental displacements). The number of attempts for cannulation was 2 ± 1 in the PiCCO group and 3.3 ± 2.93 in the Vigileo group ($p=0.43$). A single catheter was used to achieve arterial access in all PiCCO patients, while the number of catheters used for achieving arterial access was 1.85 ± 1.08 in the Vigileo group ($p=0.043$). The catheters were maintained in place for 6.72 ± 0.64 days in the PiCCO group and 5.3 ± 1.83 days in the Vigileo group ($p=0.03$). **Conclusion:** Arterial cannulation for hemodynamic monitoring using the PiCCO and Vigileo systems seem to be equally safe in the ICU patients as no major complications were encountered. Vigileo monitoring using direct/indirect radial artery catheterization seems to require a higher number of catheters and is associated with a shorter period of cannulation compared to PiCCO monitoring using the femoral artery.

Key words: Hemodynamic, monitoring, arterial cannulation.

05 The Effects of Quercetin on Proinflammatory Cytokine's Levels in Postmenopausal Women with Metabolic Syndrome
Anastasiia Medvid, Anas Nasrallah.

Introduction: Metabolic syndrome (MetS) is a common condition that predisposes individuals to the risk of developing cardiovascular diseases and type 2 diabetes. It is estimated that about 20-25 percent of the world's population have the MetS. Amongst pre- and postmenopausal women it ranges from 13.8 % to more than 60.0 %. The aim of study was to investigate of quercetine influence on cytokine's level. **Methods:** The 39 postmenopausal women with MetS were referred to the study. All observed patients were divided into 2 groups: 1-st control group (patients with MetS which treated by basic medication: RAAS blockers, acetylsalicylic acid and statin); 2-nd additionally used quercetine in dose 40 mg twice a day 30 min before meals. Interleukin 1beta (IL-1beta), interleukin 6 (IL-6), and leukotriene B4 (Ltr B4) levels in blood serum were determined using commercial ELISA kits (ProCon, Russia, Cytimmune Sciences Inc., USA; Amersham Pharmacia Biotech, UK) according to the manufacturer's instructions. Statistical analyses were performed using the Statistica 6.1 (StatSoft, Tulsa, OK, USA). **Results:** The dynamics of IL-1beta levels in blood serum during management of MetS were statistical significant in all groups. But more strong decrease of this cytokine level was in 2-nd group: for 52,34% (from $59,78 \pm 3,15$ pg/ml to $39,24 \pm 3,19$ pg/ml) ($p < 0,001$). In first group the IL-1beta level decreased only for 22,6% (from $55,75 \pm 3,11$ pg/ml to $45,47 \pm 3,45$ pg/ml) ($p < 0,01$). Similar dynamics also was observed for IL-6: for 23,0% (from $14,20 \pm 1,08$ pg/ml to $11,54 \pm 1,06$ pg/ml) ($p < 0,05$) in first group; for 60,8% (from $16,32 \pm 1,09$ pg/ml to $10,15 \pm 1,08$ pg/ml) ($p < 0,001$) in group with additional use of quercetin. Basic therapy caused decrease of Ltr B4 serum levels only for 8,5% (from $61,34 \pm 3,18$ pg/ml to $56,54 \pm 3,18$ pg/ml) ($p < 0,05$), in 2-nd group for 56,9% (from $62,49 \pm 3,15$ pg/ml to $39,81 \pm 3,12$ pg/ml) ($p < 0,001$). **Conclusion:** Thus, quercetine is strong anti-inflammation medicine which can be used for treatment low-grade inflammation at MetS.

Key words: Metabolic syndrome, menopause, cytokin.

06 Treatment of Acute Myeloid Leukaemia - A Single Center Experience
László Imre Pinczes.

Introduction: Acute myeloid leukaemia (AML) is characterized by clonal proliferation of myeloid blast cells in the bone marrow. Mortality of AML is still 60-70% in young (< 60 years) adults and 90% in elderly patients. From 2007 to 2013, 173 patients with AML were treated at our institute. Association between mortality, prognostic factors and dose of daunoblastin at induction treatment were investigated. **Methods:** Patients medical history was collected retrospectively from the electronic clinical database. Descriptive statistics were used to summarize the general feature of our study population. Survival probabilities were examined using survival analysis (LIFETEST) and the results were depicted on Kaplan-Meier curves. Log-rand test was used to compare the survival distribution between two groups. The p-value less than 0,05 was considered statistically significant. Patients were classified into favorable, intermedier (I-II.) and severe

prognostic groups according to the European LeukemiaNet prognostic guideline. Patients were followed until January, 2014. **Results:** The 5 year survival probability was 25% in young (<60 years) adults and 2% in the elderly. The outcome was highly influenced by the type (primary or secondary) of AML, dose of daunoblastin at induction treatment and rate of minimal residual disease. The 5 year survival rate was 50% in the young, favorable prognostic group. The 90 mg/m² daunoblastin dose was found to be beneficial compared to the lower doses (45 or 60mg/m²) and the treatment related mortality was not higher in this group. According to our data adding bortezomib to the standard induction protocol („3+7” protocol) has an additional effect. The speed and depth of the response to induction therapy also had an apparent effect on survival. **Conclusion:** The ELN classification, based on molecular and genetic risk factors, helped us identify prognostic groups with different survival probabilities. The classic clinical prognostic factors also play an important role in risk stratification. According to our results the more intensive and bortezomib supplemented induction chemotherapy can be beneficial.

Key words: AML, ELN prognostic classification, daunoblastin, bortezomib.

07 Anthropometric Measurements And Breast Cancer Risk - A Case Control Study.

Piotr Kuzmiersz, Renata Pacholczak.

Introduction: Evidence is that breast cancer is strongly associated with the body size. Type of silhouette and obesity are found to be linked with menopausal status and are correlated with hormonal imbalance which plays substantial role in breast carcinogenesis. The aim of the study was to investigate the association between various anthropometrics characteristics and breast cancer. **Methods:** We have conducted detailed anthropometric study of 488 women (aged 52 \pm 13) from among 193 had diagnosed breast cancer and were consecutive patients in the Oncology Clinic Jagiellonian University in years 2009-2012. We also analyzed results in regard to menopausal status. There were 61 premenopausal and 132 postmenopausal cases with breast cancer and from the control group 178 premenopausal and 116 postmenopausal. Anthropometric measurements were taken by trained clinical staff and students using standardized techniques. We subdivided them into two groups: general (height, weight, hip and waist circumference) and detailed (arm width and circumference, arm and shoulder skin-fold thicknesses). Body mass index and waist-hip ratio were calculated as indicators of obesity type. Differences between groups were tested using the t-test, model of logistic regression was built to estimate odds ratio. **Results:** Whatever the menopausal status, we did not observe any statistical differences in height, weight, hip circumference, arm width and circumference between cases with breast cancer and controls. WHR, BMI, waist circumference, arm and shoulder skin-fold thicknesses were significantly related to breast cancer risk. Additionally, in the subgroup analysis stratified by menopausal status, risk of breast cancer increases with WHR (OR 4,08 CI: 1,8-9,24) and arm skin-fold thickness (OR 1,21 CI: 1,12-1,31) in premenopausal and decrease with arm circumference (OR 0,61 CI: 0,48-0,78) in postmenopausal. The rest measurements were not significant in subgroups. **Conclusion:** Women with breast cancer present obese type of silhouette with fat distribution in central and upper part of the body. Body image disturbances begin before menopause and deteriorate in postmenopausal period.

Key words: Breast cancer BMI WHR anthropometric measurements case-control study.

08 The Experience of Pediatric Kidney Transplantation in Cluj-Napoca.

Denisa Petrescu, Malina Petrescu.

Introduction: Kidney transplantation is universally accepted as the therapy of choice for children with end-stage renal disease. The aim of this work is to study the most common primary pediatric end-stage renal diseases in Cluj-Napoca Transplantation Center, the results and the evolution after the kidney transplantation. **Methods:**

The study includes 44 children, which are in evidence at the Pediatric Clinic II in Cluj-Napoca, with the diagnosis of kidney transplantation, between January 2003 and July 2013. Children with kidney transplantation before 2003, were excluded from the study. The parameters, that were studied are: age, gender, follow-up, primary disease, treatment before transplantation, donor source, evolution after 21 days and later, complications, biological parameters (hemoglobin, urea, creatinine) and the patient and graft survival. **Results:** Primary renal diseases are obstructive uropathy, glomerulonephritis and genetic diseases. The middle age is 13 years and 2 months. Most of them are males. The main source of donors is the cadaver donors. 64% of the patients used hemodialysis before transplantation. Most of the children didn't have complications after transplantation. All patients that could be followed until the end of the study, survived. **Conclusion:** Due to the low number of complications and the high survival rate, the experience of Cluj-Napoca Transplantation Center is encouraging regarding the quality of life of children with end-stage renal disease.

Key words: Pediatric renal transplantation, donor, survival, end-stage renal disease.

09 Onset and Topographic Particularities in Takayasu Arteritis.
Anca Tulbu, Maria-Magdalena Tamas, Simona Rednic, Ana Petcu, Bianca Dumitru.

Introduction: Takayasu arteritis (TA) is a rare chronic inflammatory condition of unknown etiology affecting mainly the large arteries: aorta and its branches. It occurs mostly in women under the age of 40. This study aims to describe the onset of the disease and the topographic pattern of arterial stenosis. **Methods:** Patients with Takayasu arteritis that were admitted to the Rheumatology Department of Cluj-Napoca between 2000 and 2013 were included in this retrospective study. They all had a clinical examination, immunologic tests and different imagery exams: arteriography, CT-angiography, MRI-angiography or PET-scan, in order to evaluate the sites of arterial stenosis. The diagnosis of large-vessel vasculitis was established based on the ACR criteria. **Results:** The study included 9 women aged 14 to 55. Upper and lower limb claudication were found in 66.6% patients at the first visit. 22.2% had headaches and hypertension. Critical ischaemia with hallux necrosis, syncope, angina, amaurosis fugax, pulsatile tinnitus and vertigo were found in 11.1% each. General symptoms such as arthralgia, myalgia and myasthenia were present in 44.4%, weight loss and dyspnea in 22.2%, fever, panniculitis and erythema nodosum in 11.1%. 3 patients had notable comorbidities: Ehlers-Danlos syndrome, type 2 diabetes and selective IgA deficiency. Imagery showed a typical stenosis pattern: the left subclavian artery was involved in 77.7% of cases, both carotid and renal arteries in 44.4%, abdominal aorta in 33.3%, thoracic aorta and mesenteric arteries in 22.2% of cases. **Conclusion:** TA was diagnosed in young women with limb claudication, pulse deficit and arthralgia; but atypical symptoms were also found: visual disturbances, erythema nodosum, panniculitis, dyspnea or peripheral ischemic necrosis. The main obstruction sites were the left subclavian, aorta and carotid arteries, however, it extended to smaller vessels such as renal or mesenteric arteries.

Key words: Takayasu, woman, arterial stenosis, pulseless.

10 Cardiovascular Manifestation of Systemic Lupus Erythematosus
Renata Pacholczak, Radoslaw Lupkowski, Piotr Kuzmiersz.

Introduction: Systemic lupus erythematosus (SLE) is an idiopathic connective tissue disease. Cardiovascular complications are the third cause of death in patients with diagnosed SLE. Our aim was to assess ECG, echocardiographic and lipid metabolism changes in patients with SLE and their disturbances due to duration and activity of the disease, inflammation and level of antibodies. **Methods:** We have conducted a detailed study of history, ECG and echocardiography results of 71 patients (66 females, 5 males) aged 40 ± 12, of the II Clinic of Internal Diseases of Jagiellonian University Medical College, Cracow, Poland between November 2012 and February 2014. Based

on SLEDAI index we also determined activity of the disease. We excluded patients with diagnosed chronic cardiovascular diseases and also considered cardiac medications and others which may affect cardiac muscle. We paid attention to lipid metabolism, markers of inflammation, renal parameters and electrolyte imbalance as potential confounding factors. Additionally we divided patients into subgroups according to their duration of the disease, SLEDAI Index, CRP level, antinuclear antibodies level and creatinine level. **Results:** Elevation of ST segment was present in 12.5% of the cases, Sokolow index was increased (>35mm) in 6.25% of cases. Degenerative changes were present in valves as follows: 42,9% mitral valve, 17,1% tricuspid valve, 30% aortic valve, 14,3% pulmonary valve. Mitral regurgitation jet was observed in 87.5% of cases, tricuspid in 75%, aortic in 12.5%, pulmonary in 4.17%. 32,6% of echocardiograms revealed pericardial effusion. We observed statistically significant differences in subgroups as follows - SLEDAI Index: HDL level (p=0,05), QRS interval length (p=0,00); CRP level: triglycerides (p=0,01); kreatinine level: cholesterol (p=0,05), left atrium diameter (p=0,02); antinuclear antibodies level: left atrium diameter (p=0,03) and right ventricle diastolic diameter (p=0,03). **Conclusion:** Heart was affected in almost all of studied tests' results. Echocardiography is a test that should be performed on every patient with SLE due to common degenerative changes in valves, regurgitation jets and pericardial effusion. From among different tested parameters none of them has a particular impact on electrocardiographic, echocardiographic and lipid metabolism changes simultaneously.

Key words: Lupus, SLE, echocardiography, ECG.

11 Reproductive History Risk Factors for Breast Cancer Among Polish Women – A Case-Control Study
Renata Pacholczak, Piotr Kuzmiersz.

Introduction: Breast cancer is the most common tumor in young women. Risk factors (RF) for breast cancer have been well established. However some data are not consistent and they may vary among different populations. Aim: To determine reproductive RF which may potentially promote carcinogenesis and to obtain a better understanding of mechanism of its action. **Methods:** We have taken a detailed history of 488 women (aged 52 ± 13) within 193 had diagnosed breast cancer and were consecutive patients in the Oncology Clinic Jagiellonian University, Cracow, Poland in years 2009-2012. Additionally we analyzed results in regard to menopausal status. Overall there were 61 premenopausal and 132 postmenopausal cases patients with breast cancer and 178 premenopausal and 116 postmenopausal control group patients. We considered potential reproductive RF as follows: age at menarche, age at menopause, age at first pregnancy, parity, duration of breastfeeding of the first child, overall duration of breastfeeding, number of miscarriages. Unconditional logistic regression analyses for reproductive RF was conducted with an adjustment for age at enrollment and education. **Results:** Cases were older at last birth (p<0,05), had bigger number of parity (p<0,05) and miscarriages (p<0,05) had longer period of the first child breastfeeding (p<0,05) and overall duration of breastfeeding (p<0,05). We observed protective impact of overall duration of breastfeeding longer than 12 months on breast cancer for all women (OR 0,54; 95%CI: 0,33-0,91) and in postmenopausal women (OR 0,46; 95%CI: 0,25-0,88). Higher number of parity (over 3) was strongly associated with decreased risk of breast cancer among all women (OR 0,31; 95%CI: 0,19-0,51), premenopausal (OR 0,18; 95%CI: 0,08-0,43) and postmenopausal (OR 0,44; 95%CI: 0,23-0,84). In postmenopausal women breastfeeding of the first child was associated with lower risk of cancer (OR 0,53; 95%CI: 0,3-0,97). **Conclusion:** Duration of breastfeeding especially of the first child, number of parity over 3 decrease risk of breast cancer. Additionally there is an impact of the age at last birth and number of miscarriages. This factors with association to hormones level should be assessed in order to determine risk of breast cancer among Polish women.

Key words: Breast cancer, risk factors, reproductive history, Poland.

12 **Anti-Inflammatory Effect of Allium Cepa Plant Extracts**
Sara Odencrants.

Introduction: Allium cepa, onion, has been claimed to possess various beneficial effects upon health since ancient times. This experiment was performed to study the potential anti-inflammatory effect of A. cepa plant extract on acute experimental inflammation in rats. Reactive oxygen species (ROS) and reactive nitrogen species (RNS) play a key role in the pathogenesis of inflammation. Hence, decreasing ROS and RN. **Methods:** 75 male Wistar Bratislava rats were used and divided into 15 groups. Inflammation was induced by injecting turpentine oil 0,5mg, i.m in all rats except the negative control group. Four different types of Romanian A. cepa plant extracts were used. All were titrated to 100%, 50% and 25% dilutions. 1ml of plant extract dilution was administered through oral gavage. One group consisted of inflammation only and one group consisted of inflammation treated with 20mg diclofenac i.m. Blood was collected after 24 hours. The level of anti-inflammatory effect was evaluated through oxidative stress, which was measured through assays quantifying total anti oxidative reactivity (TAR), total oxidative status (TOS), oxidative stress index (OSI) and NO. **Results:** After 24 hours all groups treated with A. cepa extracts showed an important decrease in NO and ROS concentration compared to the inflammation group. The level of decrease varied among the type and concentration of A. cepa used, being significantly decreased for NO concentration in all groups and significantly decreased in all groups measuring ROS except for A. cepa extract type three. The results were compared against control groups and groups treated with diclofenac. **Conclusion:** Allium cepa may exhibit important anti-inflammatory properties by decreasing NO and ROS concentration, which may make it a useful natural product to be used in inflammatory states.

Key words: Inflammation, Nitric Oxide, Oxidative stress, Allium cep.

13 **Nitro-Oxidative Stress in Experimental Kidney Injury**
Aziz Anwar, Crystal Ada Dolu, Sara Odencrants.

Introduction: The purpose of this study was to show the protective role of three natural products (Krill oil, Curcumin and Astaxanthine) on Gentamicin induced acute kidney injury (AKI). As shown in previous studies all these substances have strong antioxidative properties. **Methods:** For AKI induction animals were injected with 10 mg Gentamicin i.m. for 8 days. Study adult male rats were divided into seven groups (n=5): the first was AKI without any further treatment; the second was AKI + Trolox treatment (20 mg/kg b.w./d p.o.) for 8 days; the third was AKI + Krill oil treatment (200mg/rat/d p.o.) for 8 days; the fourth AKI + Curcumin treatment (40 mg/rat/d p.o.) for 8 days; the fifth AKI + Curcumin treatment (80 mg/rat/d p.o.) for 8 days; the sixth AKI + Astaxanthine treatment (8 mg/rat/d p.o.) for 7 days; the seventh was negative control group. The kidney function was measured by assessing serum urea and creatinine. We further measured the Nitric oxide (NO), Total antioxidant reactivity (TAR), Total Oxidative Status (TOS) and calculated the Oxidative Stress Index (OSI) in order to assess oxidative stress. **Results:** Astaxanthin showed to improve the kidney function just minimally compared to the Curcumin treated groups in which the kidney function showed to be significantly improved. Similar changes were observed in the Krill oil treated group. A different situation could be observed in the TAR and TOS values. In which Astaxanthine and the high dose Curcumin showed to influence the oxidative parameters the most. Astaxanthine increased the TAR even above the TAR in the negative control group. The treatment with Krill oil and the low dose Curcumin showed to have a low statistical significance on TAR, similarities were seen in the TOS values. OSI showed to be of low statistical significance for all the treatment options. Besides the high dose Curcumin, NO was slightly decreased in all treated groups. **Conclusion:** Astaxanthin could be an option in decreasing the oxidative stress in AKI, although it did not change the kidney function significantly. Since Curcumin and Krill oil helped to ameliorate the kidney function, a possible combination of the tested treatments could help better to reduce AKI associated oxidative stress.

Key words: Acute kidney injury, oxidative stress, nitric oxide.

14 **Actual Methods of Diagnostics HPV Infection in Women**
Minina Aleksandra.

Introduction: Diagnostics of diseases associated with Human Papilloma Virus (HPV) is a topical issue in connection with the critical growth HPV infection in population, it's highly contagious and ability to cause cervical cancer. **Methods:** Work with scientific literature, analytical review. **Results:** Adequate diagnostics can be achieved only using a combination of methods, moreover doctor's professional experience is very important. Nowadays we use different methods of HPV associated diseases diagnostics, they are: immunocytochemical method for detection HPV capsid antigen, computer resonance imaging to clarify the nature of formations of lower part of genitals, electron-microscopic method imaging to detect cells in mature virions as well as using colposcopy for visualizing changes in cervical epithelium, DIGENE-test, PCR, cervical tissue biopsy for solving different aspects of this problem. **Conclusion:** Combination of colposcopy DIGENE-test and PCR is the most effective in diagnosing HPV infection in women. By means of routine inspection of vulva region, cervix and perianal region of perineum with 3-5% acetic acid solution and strong iodine solution we can identify the majority of subclinical and clinical forms of HPV infection to prevent HPV associated cervical cancer development.

Key words: HPV diagnostics, cervical cancer, colposcopy.

15 **Medical and Social Risk Factors Associated with Premature Birth**
Madalina Stirbu, Laura Stirbu, Ana Maria Marin, Alexandru Istrate, Cristina Trandafir.

Introduction: Premature birth (<37 weeks) has been associated with severe birth outcomes for the baby such as cerebral hemorrhaging, hypoglycemia, respiratory distress and even perinatal death. Our study aims to find possible medical and social factors that are directly linked to premature birth so that we can later single out the mothers at risk and provide them with closer care. **Methods:** We conducted a retrospective analytic case-control study on 1720 female patients who gave birth between Jan-Dec 2013 at the „Dominic Stanca” delivery clinic in Cluj-Napoca. They were assigned to 2 lots according to the point in pregnancy when they gave birth, the data being obtained from the patients case files: PREMATURE(case group;<37weeks) and MATURE(control group;>=37weeks). These variables were then compared with the variables: age, education, parity, nr. of abortions, smoking, nr. of antenatal visits, put on birthweight, body mass index(BMI), previous caesarean-section (CS), placenta praevia. 2x2 contingency tables were made and then analysed with the Chi Square test (Yates corrected) in the programme Epi Info 7, for which the p value, the relative risk (RR) and Odds Ratio (OR) were also calculated to determine the results statistical value. **Results:** The prevalence of premature birth was 9%. The correlation between the premature birth incidence and other variables (where the Chi Square 3.85, proving that the correlation exists, the RR was also calculated): Mothers age under 20years: RR=2.35;CI(95% 1.49 to 3.69);p=0.0002; Mothers age over 35 years: RR=4.99;CI(95% 3.95/6.31);p<0.0001; Multiparity: RR=1.75;CI(95% 1.18/2.59);p=0.0049; Smoking: RR=1.93;CI(95% 1.39 / 2.68);p<0.0001; At least one abortion: RR=1.58;CI(95% 1.15 /2.18);p=0.0047; No antenatal visits: RR=1.93;CI(95% 1.23 /3.03);p=0.0037; Previous CS: p>0.05; Abnormal BMI: p>0.05; Poor education: OR=2.08;CI(95% 1.14 / 2.98);p=0.0001; Placenta praevia: RR=8.8;CI(95% 6.09 /12.73);p<0.0001; Too little put on birthweight: RR=2.35;CI(95% 1.49 /3.7). **Conclusion:** Mothers at extrem ages, who are poorly educated, who do not gain enough birthweight, who smoke during pregnancy are 2 to 3 times more likely to give birth prematurely. The diagnosis of placenta praevia is also a risk factor, increasing the probability to 8.8. These patients should be encouraged to seek medical advice after as it is statistically (p<0.05) showed that it can reduce prematurity rates.

Key words: Risk factor, premature birth, antenatal care.

16 Stress in Daily Life and Pregnancy Leads to Infections

Victoria Zyuлина, Violetta Florova.

Introduction: More than 150 clinical studies have now shown that stress can alter immune function and contribute to the development of significant disease and poor health. We supposed that infections can be stressful stimuli suppressing the immune system as well as leading to autoimmune aggression of mother's organism to the fetus. The main aim of our research is to determine the role of infectious agent at pathogenesis of miscarriage and early pregnancy loss. **Methods:** We made an analysis of scientific articles and 87 case histories of the patients with anamnesis of miscarriage and control group with normal pregnancy at anamnesis and used statistic method. **Results:** For analysis we took 50 case histories of patients with miscarriage (2012-2013 year). The total number of patients with disbiosis of urogenital flora is 16 from 50 (32%). 50 % of patients didn't have normal pregnancy at anamnesis. 66% of patients had abortions during their life. According to the analysis of the data of test-system PCR real-time Femoflor we saw the following figures: at every third case patients had *Eubacterium* spp (28%), at every fifth (17%) - *Lactobacterium* spp. *Clostridium* spp, the rate of *Megasphaera* spp. *Veillonella* spp. *Dialister* spp. was 11%. Comparing with control group with normal pregnancy were the frequency of occurrence was 0,0-7,2%. The data from scientific references suggested the role of infection agents in urogenital tract at pathogenesis of miscarriage. **Conclusion:** Women with the diagnosis of miscarriage have a correlation between the activation factors of urogenital flora overgrowth (*Eubacterium* spp, *Lachnobacterium* spp. *Clostridium* spp) in comparison with relative healthy population of women. According to these data we can suggest that stress-induced increases in corticosteroid and catecholamine levels lead to an immunosuppressed state, leaving the host susceptible to infections and contributing to miscarriage and early pregnancy loss but scientists need more investigations to approve this theory.

Key words: Stress, miscarriage, infections, women's health, pregnancy.

17 The Effects of Hypertension During Pregnancy on Newborns

Laura Stirbu, Alexandru Istrate, Madalina Stirbu, Ana Maria Marin, Cristina Trandafir.

Introduction: High blood pressure during pregnancy is a common risk factor for premature birth and small for gestational age (SGA) newborns. It is also associated with spontaneous abortions and a low APGAR score. Up to 10% Caucasian pregnant women have this disease (5% before pregnancy, 5% pregnancy-induced). This study aims to evaluate the effects of high blood pressure during pregnancy on newborns. **Methods:** We performed a case-control study on 1640 pregnant women with live births. The women were hospitalized during January-December 2013 in the „Dominic Stanca” Obstetrics and Gynecology Clinic of Cluj, Romania. The case group consisted of 92 women with hypertension during pregnancy, while the controls comprised 1548 apparently healthy pregnant women. We analyzed the distribution and associations between maternal hypertension, time of delivery, the newborn's weight, APGAR score and history of spontaneous abortions and premature births using Statsoft Statistica 10. **Results:** The women's mean age was 28.57 years (range 13-45) and the frequency of hypertension among premature birth was 5.6%. The time of delivery varied: 75.3% were on term, 14.9% were preterm and 9.8% postterm. Mean newborn weight was 3200 grams (range: 740-5100). Median APGAR score was 10 (range: 1-10). A history of premature births was found in 2.03% and of spontaneous abortions in 17.2% of the pregnant women. We observed a positive association between hypertension and: premature birth (OR: 2.61; 95%CI: [1.7-4], $p < 0.001$), APGAR score (OR: 3.14; 95%CI: [1.19-8.33], $p = 0.04$) and SGA newborns (OR: 2.19; 95%CI: [1.34-3.56], $p = 0.01$). But we had no significant associations between hypertension and a history of spontaneous abortions or premature births. **Conclusion:** In our sample population high blood pressure during pregnancy is associated with a low APGAR score, premature birth and SGA newborns, but it is not associated with a history of spontaneous abortions and of premature births.

Key words: Hypertension during pregnancy, spontaneous abortion, underweight newborn, APGAR score.

FUNDAMENTAL SCIENCES

18 Vasculature of Lymph Nodes. Morphological Aspects in Heart Failure.

Ionescu Dan Marius, Barbu Valentina, Mesina Mihai, Andreea Safadi.

Introduction: Several clinical observations have shown the occurrence of lung and tracheobronchial lymph nodes in patients with congestive heart failure. This adenopathy is usually reversible and disappears a few days after the treatment for heart failure. In this paper we suggest to analyze the morphology of lung and mediastinal lymph nodes. **Methods:** We used cardiopulmonary blocks harvested from cadavers with a history of heart failure. In order to identify pulmonary lymph nodes vascularization we performed the dissection of the lungs injected with colored gelatin in the pulmonary veins with the operator microscope. We harvested lymph node blocks which were processed by means of standard histological techniques. **Results:** We identified pulmonary venous anastomosis bulky between circulation and systemic venous circulation, with tortuous paths and systemic valve in the extremity. In the medullary region of lung and tracheobronchial lymph nodes we noticed venous swelling which have shown varying sizes that increase volume and reduce the cortical node to a simple peripheral band. **Conclusion:** The growth of lung and tracheobronchial lymph nodes in heart failure is due to venous swelling of medullary veins in the region. Venous swelling appearance can be explained by raised pulmonary blood volume in the venous system, dilatation of pulmonary-systemic anastomoses and valvular incontinence. This mechanism explains the changes in lung lymph nodes shown by explorations in congestive heart failure.

Key words: Tracheobronchial lymph nodes, lung lymph nodes, tracheobronchial, pulmonary veins, heart failure.

19 Effects of Caffeine on Comportamental Behavior and Oxidative Stress in Brain of Ovariectomized Rats.

Caravan Ionut, Berghian Alexandra, Moldovan Remus, Decea Nicoleta.

Introduction: Caffeine is a substance consumed widely in population with antioxidant properties and behavioral stimulant effects. Estrogen depletion is reported to be associated with heightened anxiety and increased oxidative stress level in brain. The aim of the present study was to evaluate the effects of a low-to-moderate dose of caffeine on behavior and oxidative stress in brain of ovariectomized (OVX) rats. **Methods:** Twenty-eight mature female Wistar rats (3 months old, $G = 140/20g$), were randomly divided into 4 groups: group I : sham-operated control; group II : sham-operated, caffeine treated; group III : OVX; group IV : OVX and caffeine treated. Caffeine, respectively vehicle (saline solution) were administered by gavage in a dose of 6 mg/kg, once daily, for 3 weeks after OVX. Anxiety was evaluated in open-field test (OFT) and elevated plus maze (EPM) test and the percentage of open-arm entries (dependent variable for anxiety) and total distance (dependent variable for general locomotor activity) were calculated for each group. Triglycerides (TG), cholesterol (COL) and glycemia (G) levels were analysed in blood and malondialdehyde (MDA) along with glutathione reduced/glutathione oxidized ratio (GSH/GSSG) were analysed in blood and whole brain homogenates. **Results:** OVX induced serum biochemical changes represented by increase of TG ($p < 0.05$) and amplified the emotivity score, respectively the number of micturition and defecation ($p < 0.05$). Caffeine administration improved general locomotor activity, both in sham group as well as in OVX group ($p < 0.05$), reduced TG levels and decreased by 33% glutathione oxidation in the brain. **Conclusion:** Our results suggest that low-to-moderate caffeine administration had positive effects on metabolic parameters, increased general locomotor activity and protected against oxidative stress in brain of ovariectomised animals.

Key words: Ovariectomy, oxidative stress, behavior, caffeine, rats.

20 The Effects of Metabolic Therapies in Treating the MELAS Syndrome.

Mădălina Stirbu, Jean Laine.

Introduction: Mitochondria play a central role in cellular energetic production. The 3243A>G mutation in the mitochondrial tRNA^{Leu} gene is associated with the MELAS syndrome. The ratio of mutant to normal mtDNA determines the severity of the disease. The aim of our work was to study the impact of a metabolic therapy (shifting of energetic substrates) on the mutant load of cells carrying the mutation. **Methods:** The cybrids used in this study were obtained by fusing enucleated fibroblasts from a patient carrying the m.3243A>G mutation with a human neuroblastoma cell line (SHSY-5Y) in order to exclude the influence of nuclear DNA variations. Measurements of heteroplasmy levels and MtDNA mutation load analysis were done weekly on cells treated in low glucose for 12 weeks and at day 14 and day 28 for cells under ketogenic diet. The quantification of mutant loads in SH-SY5Y cybrids was determined by fluorescent PCR followed by enzymatic restriction. Quantitative PCR was applied in order to determine the mtDNA load. Lactate and pyruvate concentrations were determined by spectrophotometry using appropriate enzymatic kits. The nonparametric Mann-Whitney test was applied to assess our results statistical relevance. **Results:** The results show that decreasing the glucose availability could select the cells carrying a lower mutant load (in which mitochondrial respiratory chain is less affected) and thereby reduce the heteroplasmy level under the threshold of phenotypical expressio. This is accompanied by a decrease in mtDNA quantity suggesting a selective elimination of mutant mitochondria. Moreover, we show that ketone bodies can also decrease heteroplasmy levels and improve the cellular metabolic state (decrease of the lactate/pyruvate ratio). **Conclusion:** Metabolic therapy appears as a very promising approach to reduce the mutant load in patient cells suffering from mitochondrial disease. Further studies are needed to elucidate the precise mechanisms initiating these metabolic and mitochondrial adaptations to glucose starvation or to the ketone bodies treatment.

Key words: MELAS Syndrome, Metabolic Therapy, mutation.

21 Point Mutations K27M and G34R in Histone H3 in Acute Myeloid Leukemia.

Daiana Cosmina Temian, Elise Dietrich.

Introduction: Mutations in epigenetic marks, such as histone modifications, are important drivers of tumorigenesis. Recent studies in glioblastoma (GB) have found two new recurrent mutations (K27M, G34R) in genes encoding histone H3 variants H3.1 and H3.3. The aim of this study was to see if the two mutations can also be found in acute myeloid leukemia (AML), due to its similarities to GB in epigenetic changes. **Methods:** A total of 32 patients diagnosed with different AML subtypes - 18 with acute promyelocytic leukemia (APL), 7 with core binding factor-AML (CBF-AML) and 7 patients with normal karyotype AML (NK-AML) and 4 cell lines (NB4, Kasumi, ME-1, HL60) were sequenced using the Sanger method, the current gold standard in mutation testing. The genes targeted were the exact same genes found to be mutated in GB, namely HIST1H3B and H3F3A encoding histone H3, variants H3.1 and H3.3 respectively. Both genes were interrogated for two missense mutations that lead to either lysine (K) 27 to methionine (M) substitution (mutation K27M) or glycine (G) 34 to arginine (R) substitution (mutation G34R). **Results:** Regarding patients with APL, the largest group of screened patients in our study, no mutations have been found. Also, none of the patients with CBF-AML or NK-AML have been found to carry any of the mutations. Overall, no K27M and G34R mutations were found in HIST1H3B and H3F3A genes among the 32 AML patients and the 4 AML cell lines that were sequenced. The screening for such mutations has been optimized on site during this project and can now be performed as a routine test for any disease. **Conclusion:** As a first insight into histone H3 mutations in AML, it is unlikely that the K27M and G34R mutations play a significant role in APL. However, regarding CBF-AML and NK-AML, a larger number of patients need to be sequenced before any conclusion can be drawn.

Key words: Acute myeloid leukemia, histone H3, mutation, Sanger sequencing.

22 Neuroprotective Effect of *Acalypha Indica Linn* Root Extract to Nuclear Changes of Hippocampal Neuron Post Cerebral Hypoxia.

Herliani Dwi Putri Halim, Elisa Noor, Ade Ilyas Mukmin, Johnny Bayu Fitantra.

Introduction: Worldwide, stroke is the third leading cause of death after coronary artery disease and cancer. *Acalypha indica Linn*, a wild plant commonly found in Indonesia, is known to have antioxidant activity, thus has potential to be neuroprotective agent. This study was conducted to determine effect of root extract of *Acalypha indica Linn* in protecting nucleus of hippocampal neuron post cerebral hypoxia. **Methods:** This research is an experimental in vivo study to demonstrate the neuroprotective effect of *A. indica Linn* root extract to hippocampal neuron of Sprague Dawley rats. The rats were grouped into control group and exposure groups to root extract of *A. indica Linn* with doses of 300 mg/kgBW, 400 mg/kgBW, and 500 mg/kgBW for seven consecutive days. On the eighth day, the common carotid arteries of rats were ligated for an hour to induce hypoxia. The hippocampal slide was then observed under microscope connected to OptiLab Viewer program. We counted total cell and cell with damage nucleus in CA1, CA3, inner and outer dentatal gyrus area of hippocampus; then the percentage of cell with damage nucleus was statistically analyzed. One-way ANOVA was used for statistical analysis, and significant result was then analyzed with post hoc. **Results:** Quantitatively, percentage of cells with damage nucleus was lower in exposure group in CA3 and outer dentatal gyrus area. Statistical analysis using One-way ANOVA showed significant result in CA1 ($p=0,042$) and CA3 ($p=0,034$) area. However in post hoc analysis, in CA1 area, significant result was between different dose of exposure group (dose of 300 mg/kgBW and 400; 500 mg/kgBW) and insignificant between control and exposure group. In CA3, we found significant mean difference between control group and exposure group with dose of 400 mg/kgBW ($p=0,011$) and 500 mg/kgBW ($p=0,011$). **Conclusion:** *A. indica Linn* root extract with doses of 400 mg/kgBW and 500 mg/kgBW have neuroprotective effect on hippocampal neuron of CA3. As a future perspective, we recommend that future studies be devoted to investigate further optimum dosage of *A. indica Linn* root extract to give neuroprotection. We also need to investigate why the extract gave different effect in different area of hippocampus.

Key words: *Acalypha indica Linn*; hippocampus; hypoxia; neuroprotection.

23 First Documented Case of *Candida Sojæ* Infection.

Orsolya Bubno.

Introduction: A 16-month-old girl with atypical teratoid-rhabdoid tumour underwent surgery and chemotherapy. She was given total parenteral and nasogastric nutrition. During the hospitalisation *C. sake* was isolated 14 times from her blood samples. Combined amphotericin B, fluconazole and voriconazole therapy could eliminate this uncommon pathogen. **Methods:** In 2012 *C. sake* was identified from clinical specimens of 7 patients in our Institute, using API ID 32C carbohydrate assimilation tests. For correct identification molecular biology techniques were used. Out of the 7 isolates 4 proved to be *C. sojæ*, 2 *C. albicans* and 1 *C. tropicalis*. Having isolated for the first time from human specimen, our aim was to evaluate the in vitro activities of the major antifungal agents against *C. sojæ*. We used 2 clinical isolates and one *C. sojæ* type strain. MICs were determined in RPMI-1640 medium following the Clinical and Laboratory Standards Institute M27-A3 document. Time-kill studies were performed by the method described by Klepser et al. (Antimicrob Agents Chemother 1998; 42:1207-12). **Results:** Amphotericin B, fluconazole, voriconazole, posaconazole, caspofungin and micafungin MIC values were 1, 0.5, 0.5, 0.03, 0.06 and 0.06-0.125 mg/L, respectively. Amphotericin B was fungicidal at concentrations ≥ 1 mg/L, whereas all the other agents had fungistatic effect at clinically attainable concentrations. **Conclusion:** *C. sojæ*, initially isolated from soybean, has emerged as a rare opportunistic pathogen. In our case the source of infection could have been the soy-containing nutrition. Our results confirm that any of the pathogens existing in our environment can cause invasive infection in immunocompromised patients.

Key words: *Candida sojæ*, uncommon, opportunistic pathogen.

24 The Effect of New Anticonvulsants Drugs on Anxiety in Rats.
Paul Mihai Boarescu.

Introduction: The anticonvulsants are a diverse group of drugs used in the treatment of epileptic seizures. Anticonvulsants such as levetiracetam and pregabalin have also been found effective in other clinical situations like anxiety. This paper aims to study the possible effect of levetiracetam and pregabalin on anxiety and spontaneous behavior of animals. **Methods:** 60 Wistar Bratislava rats included in the study were randomized to form 6 homogenous groups of 10 rats. We had a control group groups treated with saline (0.5 ml/100 g) , 2 groups treated with levetiracetam (5 mg/kg, 50 mg/kg), 2 groups treated with pregabalin (15 mg/kg, 30 mg/kg) and one group treated with a standard anxiolytic drug, diazepam (1 mg/kg). Two simple tests were chosen to assess a potential anxiolytic effect, open field test (OF) and elevated plus maze test (EPM). The data were statistically analyzed, with a significance at $p < 0.05$. **Results:** Pregabalin 15 mg/kg significantly increased the number of entries in all parts of EPM, compared to saline and diazepam groups. There is a significant difference between pregabalin doses regarding the entries into the open and center parts of EPM. Levetiracetam has a significant increased number of entries in all parts of EPM, especially at highest dose. In the OF test Levetiracetam reduces exploratory tendency at high dose compared to control and diazepam. In EPM pregabalin both doses and levetiracetam the highest one significantly increase the motility compared to control group. In OF test only pregabalin 30 mg/kg increases the motility compared to control group. Levetiracetam produces a decrease exploration in both doses compared with control group. **Conclusion:** Pregabalin 15 mg/kg causes an anxiolytic effects in experimental animals. Pregabalin 30 mg/kg dose has a sedative effect. Levetiracetam 5 mg/kg and 50 mg/kg have anxiolytic effect. Pregabalin anxiolytic effect is dose dependent. Anxiolytic effect of levetiracetam is inconstant in EPM and OF tests.

Key words: Anxiety, levetiracetam, pregabalin, open field test, elevated plus maze test.

25 Circle of Willis: Anatomical Variations Important in Cerebral Vascular Pathology.
Pascalau Raluca, Radurean Vlad Adrian.

Introduction: The circle of Willis is known to be a highly variable anatomical complex. Although they do not impair the perfusion of the brain because of the anastomotic system, anatomical variants may increase the risk for neurological diseases such as aneurysms, infarcts or even mental disease or migraine. The present study aims to analyze the circle of Willis from a clinical point of view. **Methods:** Ten formalin injected human brains were macroscopically observed. Circle of Willis and the proximal segments of the main arteries were dissected and their diameters and lengths were measured using a Vernier caliper. The bases of the brains were photographed from 3 standard angles with a Nikon COOLPIX L120 camera. Anatomical variants such as asymmetry, hypoplasia, atypical origin, fusion, absence or duplication were recorded and tabulated using descriptive statistics. The possible clinical implications of each circle variant were hypothesized according to blood flow hemodynamics, relation with neural structures and clinical cases reported in the literature. **Results:** Each of the brains showed at least one morphological change. Moreover, 40% presented multiple anomalies. Asymmetry occurred in 80% of the brains, especially in the posterior communicating (70%) and anterior cerebral (40%). The posterior circulation had more variations (65.21%). Nine hypoplastic vessels (44.44% posterior communicating followed by 22.22% anterior inferior cerebellar) were encountered in 7 brains. Atypical origins were observed in 8 cases including one labyrinthine artery emerging from the basilar. Other recorded variants were the unilateral absence of the anterior inferior cerebellar artery; fusion of the anterior cerebral arteries forming a single trunk, which divides in the two pericallosals; double superior cerebellar artery and the presence of median callosal artery. **Conclusion:** We pointed out anatomical variations of both the anterior and posterior circulations, relevant for neurovascular anatomy and pathology, especially for the incidence and management of cerebral aneurysms. The measurements provided by this study may help in planning intracranial bypass. Last but not least, anatomical variants could be indications for preventive aneurysm treatment.

Key words: Circle of Willis, anatomical variants, hypoplasia, asymmetry, aneurysms.

26 Study of the Behaviour and of the Interaction of the NFH-GFP Fusion Protein with other Intermediate Filaments: A Cellular Approach.
Sonia Elimia Selicean, Sofia Ortuno.

Introduction: The fusion protein NFH-GFP of the high molecular weight subunit of the neurofilaments (NFH) and the green fluorescent protein (GFP) is useful in investigating the biology of neurofilaments, with multiple physiological and pathological implications. The aim of this study is to determine whether NFH-GFP forms in vitro homopolymers and also heteropolymers with other intermediate filaments (IFs). **Methods:** Three established cell lines were used: the rat gliosarcoma cell line 9L and the human glioma cell line U87, which both express all cytoskeletal elements (microtubules, actin filaments and IFs), were used for the investigation of the interaction between NFH-GFP and other IFs (e.g. vimentin, keratin); the human adrenal carcinoma cell line SW13, which is devoid of all IFs, was used for the investigation of the behaviour of NFH-GFP by itself. For each cell line we used two strains : one was stably transfected with the NFH-GFP plasmid and the other one was non-transfected (control). Cytoskeletal elements were stained by fluorescence immunocytochemistry and visualised by microscopy. Subsequently, the resulting images were processed in order to assess the expression of the NFH-GFP and its interactions with the intrinsic cytoskeletal elements. **Results:** The 9L cell line exhibited a very good expression of the NFH-GFP protein and observations showed a relevant overlap of the NFH-GFP network and the intrinsic vimentin network. Interactions with the other cytoskeletal elements were not relevant. **Conclusion:** The NFH-GFP protein has been shown to be able to form a network on the pre-existing vimentin network of non-neuronal cell lines. Also, it displayed the ability to form homopolymers in vitro, although it cannot be stated that it built a real network. The question whether this protein can assemble by itself in vivo and is involved in certain neurodegenerative disorders remains open.

Key words: Neurofilaments, NFH-GFP fusion protein.

27 Effects of Gold Nanoparticles Functionalised with Natural Extracts on Carrageenan-Induced Inflammation In Rats.
marcel i. Gheorghiu, Adriana Mureşan, Pompei Bolfa, Luminita David, Liliana Olenic.

Introduction: Excessive inflammation with impaired resolution plays a central role in morbidity, hence, new biomaterials that temper inflammation, without side-effects, are of considerable interest. The purpose of our study is to evaluate the anti-inflammatory effects of materials based on gold bioconjugates (VO-fGNP) and compounds extracted from *Viburnum opulus L.* (VO) on acute inflammation model in rats. **Methods:** The inflammation was induced by intraplantar injection of 100 μ l 1% carrageenan, on 5 randomised groups of Wistar rats: positive control (Indomethacin, 5mg/kg), negative control (saline solution) and 3 test groups (VO 15 mg/kg; VO 30 mg/kg; VO-fGNP 30mg/kg). The substances were orally administrated daily for 4 days before the experiment. At 2h, 24h and 48h after induction of inflammation the paw oedema was measured and plantar tissue was taken for evaluation of cytokines (IL-1 α , IL-1 β , IL-6) levels and expressions of cyclooxygenase (COX-2) and inducible nitric oxide synthase (iNOS). Malondialdehyde (MDA) and glutathione reduced/glutathione oxidized (GSH/GSSG) levels were assessed in plantar tissue and serum. Catalase (CAT) and glutathione peroxidase (GPx) activities were determined in paw tissue and erythrocyte lysates. Values were compared with one-way ANOVA test and Tukey post-test. **Results:** The low dose of VO reduced oedema significantly (40.54% vs. negative control; $p < 0.05$), diminished IL-1 α and IL-6 ($p < 0.05$), particularly at 2h, and increased GSH levels (2.99 \pm 0.70 vs 1.3 \pm 0.37; $p < 0.05$) at 48h after carrageenan injection. VO-fGNP treatment had no positive effect on paw oedema formation, but reduced MDA levels in tissues, similar to Indomethacin (0.11 \pm 0.04 vs. 0.29 \pm 0.12 nmole/mg P), and increased GSH/GSSG ratio (11.95 \pm 3.92 vs. 6.45 \pm 0.90 in control group; $p < 0.05$) and antioxidant enzyme activities in tissues (GPx: 95.50 \pm 33.73 U/g P vs. 38.00 \pm 12.00 control; $p < 0.01$; CAT: 1.08 \pm 0.43 U/g P vs. 0.45 \pm 0.06 control; $p < 0.05$), at 48h after induction. In addition, VO-fGNP reduced IL-1 α and IL-6 levels ($p < 0.05$) and decreased iNOS expression ($p < 0.01$) early after carrageenan administration. **Conclusion:** This study suggests that natural-compounds-fGNP may be a better alternative in the treatment of inflammatory disease, with the advantage of better penetration and persistence inside the target tissues.

Key words: Gold nanoparticles, inflammation, oxidative stress, rats.

28 **Metamizole Sodium Effects on Ocular Vascular Tone.**
Stefan Oana, Horia Paunescu.

Introduction: Metamizole sodium is a non-steroidal anti-inflammatory drug with an antispastic effect. Some studies revealed its vasodilatory effect in the internal carotid territory. A method has been built to evaluate the possible effects of metamizole sodium on ciliary vascular territory (derived from the ophthalmic artery which origins in the internal carotid). **Methods:** 3 groups of 6 Wistar rats anesthetized with chloral hydrate were used. A clamp was used to spread out the eyelids and 6-minute recordings were made using an optical system connected to a video camera and to a PC. Two drops of distilled water, metamizole sodium 5% w/v or felodipine 2mM were instilled 30 seconds after the recording has started. The vessel caliber before and after instillation was evaluated by measuring the diameter at fixed intervals of time (30 seconds). A fixed area of interest in the vessel was selected and diameters were calculated from 10 to 10 pixels horizontally, yielding 5 values on which the average vessel diameter was obtained. Means, percentage differences between each value recorded and initial value, standard deviations and p values (t test) were calculated. For processing the results, the software VirtualDub, Adobe Photoshop and Microsoft Excel were used. **Results:** Compared to distilled water (used as the negative control), felodipine (the positive control) has produced a statistically significant vasodilation in the arteries (8.8% vs. 51.8%, $p=0.039$) but not in the veins (0.2% vs. 4.9%, $p=0.1$). Compared to distilled water, metamizole sodium has produced a statistically significant vasodilation in the arteries (8.8% vs. 39.7%, $p=0.04$) and in the veins (0.2% vs. 32%, $p=0.018$). **Conclusion:** On the ciliary vascular territory, metamizole sodium behaves as an arterial vasodilator and also as a venous vasodilator. The possible mechanism of action for metamizole sodium could be the inhibition of prostaglandins synthesis (not by blocking calcium channels as felodipine does). This method could be used to evaluate, in vivo, the effects of different substances on vascular tone.

Key words: Ciliary arteries, ciliary veins, vasodilation, metamizole.

29 **Allium Cepa Plant Extract Effect on Nitro-Oxidative Stress in Experimental CCl₄ Induced Liver Injury.**
Nwakpadolu Chisom Crystal.

Introduction: Patients with chronic liver disease ultimately progress to develop cirrhosis and portal hypertension. Recently it seems well established that nitric oxide disturbances play a key role in the pathogenesis of chronic liver disease and portal hypertension. To determine whether Nitric Oxide (NO) system disturbances, have a significant role to play in the pathogenesis of Cirrhosis (CIR). Also, to analyze the effect Allium sp. has on the liver i.e, does it possess a hepato- protective quality, therefore slowing down the rate of liver injury in CIR. **Methods:** The study was performed on five adult male rats (n=6). Cirrhosis was induced by administering 4% CCl₄ p.o. in olive oil (1 ml/animal) twice/week for 2 weeks. Group one was CIR positive control; group 2 was treated with a hepato-protective agent, Silimarine (50mg/kg b.w./day); groups 3 and 4 were treated with extract of Allium cepa in two dilutions, 100% and 50% (1ml/animal/day); group 5 was negative control. All subjects included were subjected to full clinical assessment, routine laboratory liver investigations (AST, ALT, HDL, triglyceride, total cholesterol) and serum nitro-oxidative stress tests (nitrites and nitrates - NOx, total oxidant status - TOS, total antioxidant reactivity - TAR, oxidative stress index - OSI). **Results:** There was an increased NO synthesis and oxidative stress in CIR. Also, concentrations were correlated with increased AST, ALT, HDL, TRIG levels. Silimarine treatment reduced the liver damage, liver functional tests and nitro-oxidative stress significantly. Allium cepa was an efficient inhibitor of the nitro-oxidative stress, but did not influence significantly the liver functional tests. **Conclusion:** Allium cepa has a positive antioxidant effect in experimental liver injury induced by CCl₄.

Key words: CCl₄, Cirrhosis, Nitric Oxide, Allium cepa.

PUBLIC HEALTH

30 **How Education Influences Family Planning.**
Laura Stirbu, Cristina Trandafie, Alexandru Istrate, Mădălina Stirbu, Ana Maria Marin.

Introduction: Sociologists believe that the family forms the basis of society and that it is important to constantly observe its dynamic guided by social factors such as age, education, occupation, average income and so on in order to evaluate the current level of civilization. The aim of our study is to demonstrate how one factor, education, can influence the mothers attitude towards family planning. **Methods:** Our team conducted a retrospective analytic case-control study on 1660 patients who gave birth between Jan-Dec 2013 at the „Dominic Stanca” clinic in Cluj-Napoca. They were assigned to 2 lots by their level of education obtained from the patients case files: LOW (case;no high school graduation)and HIGH (control;with bachelor degree). The variable education was then compared with the variables: age, contraceptive use, nr. of pregnancies, parity, nr. of abortions, nr. of unplanned pregnancies. 2X2 contingency tables were made and then analysed using the AVERAGE formula and Pie procentual charts in Microsoft Excel 2010 and the Chi Square test (Yates corrected), for which the p value and the relative risk were calculated. Further correlations were made with the variables:evidence of prenatal care and nr. of follow-ups as markers of the mothers interest in the well-being of her pregnancy. **Results:** LOW compared to HIGHER education levels: Average age: 25.4/29.37 years. Use of contraceptives: 9%/24%; Chi Square [3.85,+½];RR=2.67;CI(95% 1.86 to 3.84); $p<0.0001$; Average nr. of pregnancies: 3.36/1.91; Average Parity: 2.65/1.53; Average nr. of abortions: 0.47/0.18; Unplanned pregnancies: 49.4%/14.12%; Chi Square [3.85,+½];RR=1.69;CI(95% 1.52 to 1.88); $p<0.0001$; Evidence of prenatal care: 70%/99%; Chi Square [3.85,+½];RR=41.5;CI(95% 21.26 to 81.05); $p<0.0001$; Average nr. of prenatal follow-ups: 4.22/9.24. **Conclusion:** Educated women take family planning more seriously.By using more contraceptives they reduce the nr. of unplanned pregnancies and thus the abortion rate.Even when they do get pregnant they show more interest in the well-being of their pregnancy by having regulated follow-ups.In the light of the results more focus should be placed on less educated women who clearly need guidance in family planning.

Key words: Education, pregnancy, family planning.

31 **HIV Clinical Tests and Awareness Workshops Among Children and Teens in the Kibera Slums, Kenya, Africa.**
Rahul Choubey.

Introduction: Kenya has a severe HIV epidemic, but in recent years, the country has experienced a notable decline in HIV prevalence, attributed in part to significant behavioral change and increased access to ART. National HIV prevalence is estimated to have fallen from 10% in the late 1990s to about 6.1% in 2005. The project aimed to spread awareness and perform clinical tests on slum children and teens. **Methods:** Several Health awareness workshops were conducted in 7 schools and orphanages directly involving 2100 children and teens aged between 10 to 18. Clinical tests were done to 65 children (41 male and 24 female) aged 1 to 5 in 2 orphanages. **Results:** The clinical test results showed 3 children being HIV positive with out having prior knowledge (1 male and 2 females), about 4.6%. **Conclusion:** The clinical work showed 4.6 percentage of the included children to be HIV positive. A follow up treatment were set up for the children in local government hospitals. The workshops gave an elaborate information about HIV/AIDS to the children, it showed that a few children had little or considerable knowledge of HIV/AIDS, as a result of government or NGO efforts.

Key words: HIV, AIDS, Kenya, Africa.

32 Comparing the Smoking Behavior of Medical Students and Philology Students in Cluj Napoca.
Ramona Crişan.

Introduction: Smoking is the most important public health threat in our society, being the main preventable cause of death. The purpose of this study is to describe and compare the knowledge, attitude and practice of medical students and philology students in Cluj-Napoca about tobacco use. **Methods:** In this cross-sectional study during the academic year 2012-2013, a questionnaire containing 17 questions gathered information from 149 medical students and 203 philology students, randomly selected. Data description and analysis was made using Microsoft Excel tables and charts. Statistical Hi square test was applied using Epilinfo program. **Results:** The smokers rate is higher in medical students (70%) than in philology students (56%) $p < 0.05$. 90% of both, medical and philology students, agreed that tobacco sale should be forbidden to adolescents. Medical students believe in higher than rates than philology students, that tobacco publicity should be forbidden (RR= 0.8, 95%CI 0.76- 0.97), and also that smoking should be prohibited in restaurants (RR=0.9, 95%CI 0.82- 0.98), pubs (RR=0.8, 95%CI 0.68- 1.03), and all public places (RR=0.883, 95%CI 0.77- 1.00). Higher rates from medical students believe that medical personnel are considered to be models for the society (71% vs. 44%; $p < 0.05$). More medical students have received assistance for smoking cessation than philology students (26% vs.16%, respectively; $p < 0.05$). **Conclusion:** Medical faculty has more students who have tried to smoke at least once, than Philology faculty. This survey provided significant differences in this two groups of students, regarding tobacco publicity and smoking attitude. A minority of all students reported ever receiving any information about tobacco cessation. Medical schools should prepare future doctors for smoking prevention and discourage tobacco use.

Key words: Students, Tobacco, Smoking Behaviour, Attitude.

33 Risk Factors Associated with Head and Neck Squamous Cell Carcinoma (HNSCC) and Prevalence of Those Risk Factors in Agra District (India) and Timișoara (Romania).
Ashwini Kumar.

Introduction: In India the incidence of HNSCC is progressively increasing. Association between HNSCC and Tobacco is well established by previous studies. Purpose of this study is to evaluate the form of tobacco responsible for HNSCC in Agra district, India and to find out up to what extent tobacco and other factors can predispose to HNSCC. Furthermore, the data can be compared with Romanian population. **Methods:** The regional study conducted on patients in which FNAC (Fine needle aspiration cytology) resulted in diagnosis of Squamous cell carcinoma of head and neck region at Sarojini Naidu Medical College (SNMC), Agra. Type of study was mainly a retrospective review of cases over a period of January to September 2013. Cases presented at Outdoor patient department (OPD) were also examined. The data collected includes Age, gender, sex, tobacco abuse (history of smoking cigarette, beedi, hookah and non-smoking tobacco such as Chewing tobacco and betel quid), alcohol abuse, oral hygiene, diet and socioeconomic conditions. Overall 301 cases were studied and differentiated according to the TNM staging method and the site of presentation. Another thorough study was conducted at Victor Babeş University of Medicine and Pharmacy, Timișoara for the prevalence of HNSCC. **Results:** In Agra, 301 patients were reviewed with head and neck tumors; 94% were diagnosed with HNSCC. Overall 99.7% had history of tobacco abuse in various forms, 64.3% were Beedi/cigarette smokers, 0.35% with hookah smokers and 48.4% were tobacco chewers; out of them 2.91% also chewed betel quid. 35.33% patients had history of both alcohol and tobacco (Tobaccoholic). Approximately patients used tobacco products for around 10-15 years, and average age of presentation was 50 years. Overall 90.8% patients were males and 9.1% were females. Almost all patients presented with bad oral hygiene and most of them belonged to low socioeconomic status. The usual site of presentation was Base of tongue and Buccal mucosa. In Timisoara, Cigarette smoking was the only major risk factor. **Conclusion:** Bidi smoking and tobacco chewing are major risk factors for HNSCC in Agra, Betel quid chewing resulted in worse prognosis. Alcohol, low socioeconomic conditions and bad oral hygiene can predispose to Oral cancer. Regarding Romanian population, there is comparatively less risk of developing HNSCC because Cigarette is lesser carcinogenic to oral mucosa but has more carcinogenic effects on lungs.

34 Regular Check-Ups and Socio-Demographic Factors of Romanian Patients: What is the Link Between Them?
Alexandra Bocoş, Mihai Sabău.

Introduction: In Romania, non-communicable diseases are the main cause of death. However, the high morbidity and mortality associated to cardiovascular diseases, diabetes and cancer can be prevented by avoiding their risk factors, including regular check-ups. The aim of this study is to identify the socio-demographic factors which influence people's decision to visit a doctor for preventive purposes. **Methods:** A representative sample of 1.499 individuals across all regions of Romania responded to a five-part questionnaire. The parts of the questionnaire used for this study contained information about the respondents and their families' health status in the previous 12 months and whether they accessed or not medical services. Of 1.499 responses, a sub-sample (n=217) was extracted for the purpose of the current study. This sub-sample consisted of people who went to see the doctor, although they were not ill. Data were analyzed in relation to socio-demographic indicators. IBM SPSS Statistics version 19 was used to perform frequencies and crosstabs to determine whether differences in education, gender, age, living region, occupation and marital status explained people's different preventive behaviours. **Results:** The region with the highest percentage of respondents who get regular check-ups is Dobrogea (18.84%), followed by Bucharest (17.47%). The rest of the regions have percentages ranging from 11.22% in Muntenia and 9% in Transylvania to 8.8% Moldova. In contrast with Dobrogea, respondents from Oltenia region have around a 3.5 times lower rate of engaging into preventive behaviours (5.16%). Concerning occupation, 14.37% of the people who are retired went to the doctor in the last 12 months for a regular check-up, followed by the unemployed (13.71%) and people with non-manual occupations (13.54%). Among the respondents, students (3.79%) and people with higher education (4.7%) have the lowest rates of doctor visits for check-ups. **Conclusion:** The small number of people who make regular check-ups fluctuates by living region and occupation. Bucharest's high number of check-ups can be explained by the higher number of doctors/1000 citizens (6.02), compared to 2.09 doctors in Oltenia. However, this factor cannot explain the high check-up rates from Dobrogea (2.04 doctors). More in-depth research is needed to explain our current findings.

Key words: Prevention, occupation, residence area.

35 Barriers to Dental Care Access: The Romanian Patients Perspective.
Cezar Codrut Fatu, Florin Junior Toderascu, Mara Timofe, Petru Sandu.

Introduction: Oral health is an important component of the quality of life. Romania has one of the cheapest dental care services among upper middle income countries. However, the oral health of Romanian population is poor (compared with EU countries, EU average). The purpose of this study is to assess the perceived barriers of Romanian patients in accessing dental care services. **Methods:** Data was collected through Computer Assisted Telephone Interviews (CATI), resulting in 1593 valid questionnaires. Our sample consists of all the respondents out of 1593 valid questionnaires. We used descriptive statistics in order to assess their living area (urban/rural), if they accessed dental care services in the past 12 months and the barriers perceived by the respondents who did not access dental care services in the past 12 months. **Results:** Out of the total sample of 1593 respondents, 58% (N=923) are living in urban areas whereas 42% (N=670) are living in rural areas. More than half of the number of respondents from the urban area 51.67% (N=477) as well as 65.37% (N=438) respondents from rural area stated that they have not accessed dental care in the past 12 months. The main reasons for not accessing dental care services were: (1) lack of financial resources, stated by 39.66% (N=190) of urban and 47.38% (N=208) of rural respondents and (2) the lack of necessity for a yearly consultation stated by 39.03% (N=187) or urban respondents and 33.94% (N=149) or rural respondents. **Conclusion:** Our study reveals that the main barriers perceived by the patients in accessing dental care are the lack of financial resources followed by the lack of health literacy showed by the patients. However these issues can be solved through customized campaigns that will reach different target groups which will contribute in reducing the barriers identified.

Key words: Dental care, challenges, urban area, rural area, Romania.

SURGICAL SCIENCES

36 E-Notes Procedures- Initial Experience.

Ana Maria Cosma, Nadim Al Hajjar, Andrei Szasz.

Introduction: E-NOTES (Embryonic Natural Orifice Transumbilical Endoscopic Surgery) is the result of the development in the minimal invasive techniques. It consist in only one surgical entryway-umbilicus, with potential advantages over conventional laparoscopic surgery- less invasive and less traumatic, with a better cosmetic outcome. We report our experience performed using this single- site surgery. **Methods:** We report our initial experience of 6 cholecystectomies and 6 appendectomies performed between May 2010 and March 2012 using only the umbilicus as entryway. We used the Covidien SILS device for 5 cholecystectomies and the X-Kone device for the sixth patient. The sealing of the cystic duct and artery was performed in all cases with 5 mm LigaSure device. The appendectomies were performed using three 5 mm standard trocars inserted through the umbilicus in 4 cases and for the fifth and sixth case we used only one 5 mm trocar and Dapri graspers. **Results:** All interventions were performed in good conditions, with minor technical inconvenience compared to the usual laparoscopic technique. We didn't notice any complications, the recovery time was minimal and the aesthetic results were perfect, practically no visible scar showing at 1 month after surgery. **Conclusion:** E-Notes technique is an excellent alternative to conventional laparoscopy being just as safe and reliable, shortening even more the recovery period and offering a perfect scar-free aesthetic result.

Key words: E-NOTES, trans-umbilical cholecystectomy, trans-umbilical appendectomy.

37 Surgical Approach of Aortic Valve Disease Associated with Coronary Artery Disease.

Al Hussein Hussam, Al Hussein Stela, Cernica Daniel Răzvan, Ruxandra Oancea, Ioan Teodor Bud.

Introduction: The combination between Ao valve stenosis and coronary lesions represents a particular group of pathology whose severity is given by the association of the left ventricular hypertrophy (due to aortic valve disease) and reduced blood flow toward the myocardium (due to coronary stenosis). The aim of the study is to evaluate the surgery results at this category of patients with increased surgical risk. **Methods:** We retrospectively reviewed 83 patients with AoVS and coronary artery disease (CAD) who were operated at the Cardiovascular Surgery Clinic from the Institute of Cardiovascular diseases and transplant Targu Mures on a period of 4 years, 2010-2013, in this study being included 3 other groups of patients with valvular lesions associated to the existing AoV, and namely: AoV with aortic insufficiency (38), AoV with mitral insufficiency (6), AoV with mitral valve stenosis (9) who also presented associated coronary lesions. Were evaluated the pre-surgical data related to the aortic valve disease (left ventricle hypertrophy, ejection fraction of the left ventricle, the aortic ring size, the number and the severity of the associated coronary lesions, pre-surgical acute coronary events), details of the surgery and the postoperative evolution. **Results:** From the 131 cases the male patients represented the largest number of cases (67,2%), whereas female patients were 32,8%, with the medium age of 66 years. Was performed aortic valve replacement with mechanical valve prosthesis in 79 cases and aortic valve replacement with biological prosthesis in 48 cases. To them was also performed coronary artery bypass grafting (CABG) with autologous saphenous vein graft in 73 cases on the left anterior descending artery (LAD), 10 cases on the left circumflex artery, 53 cases on the right coronary artery (RCA), and in 16 cases was used the left internal mammary artery (LIMA). The duration of the surgeries as the duration of the evolution was proportional with the severity of the aortic lesion and the number of associated coronary lesions. **Conclusion:** Although the association of these two groups of diseases represents a combination with severe prognosis for the patient, with appropriate surgical treatment were obtained good results and favourable evolution of the patients.

Key words: Aortic valve stenosis, coronary artery disease, aortic prosthesis, coronary artery bypass grafting.

38 The Superficialization of Arterio-Venose Fistulas.

Maria Mihaela Minciuna, Dan Andrei Radu Cosnita, Antoniu Glad Craciun, Iasmina Rosu.

Introduction: The therapeutic Arterio venous Fistula is now the best method of vascular access for long time hemodialysis. Initially, arterio-venous fistula was performed between the radial artery and cephalic vein. The principle underlying arteriovenous access consists of artery blood flow passing directly into a vein. This fistula allows direct passage of artery blood flow in the vein, it dilates, wall thickens and can be addressed to achieve the extracorporeal circuit during hemodialysis. Later, have been carried out fistulas at the fold of the elbow between the brachial artery and cephalic vein, brachial or basilica. **Methods:** Over a period of 12 years between 2001 to 2012 were made in 1612 brachiocephalic fistulas, 484 brachio-basilic fistulas and 81 brachio-brachial fistulas. All interventions were performed under local anesthesia with Zeiss magnifiers system (since 2005), microsurgical instruments and Prolene non-absorbable monofilament yarn for anastomosis (6-0, 5-0). Type of anastomosis used was termino lateral. **Results:** From these arteriovenous fistulas, 14 cases were brachio-cephalic fistulas, 476 cases of brachio-basilic fistulas and 81 cases of brachio-brachial fistulas, required secondary surgery superficialization. After a variable period of time, about 7 to 21 days from surgical intervention, dialysis treatment was possible. The results were great, every single fistula was complete functional. **Conclusion:** The brachio-basilic and brachio-brachial fistulas, represents the functional and long-standing alternative, for classical dialysis surgical methods. The key of success for long term in this type of surgery consists in a specialized and complete pre surgical examination, a very good clinical examination, a Doppler vascular exam and an astonishing vein anastomosis, realized by an experienced surgeon.

Key words: Brachio-basilic fistula, brachio-brachial fistula, experienced surgeon.

39 Replantation of Digits and Hand: Pattern and Mechanism Analysis. Maria Adelina Macec.

Introduction: Traumatic amputation of the hand is a mutilating injury with a great psychological impact on the patient. Replantation is an important technique in the management of hand trauma. The aim of this study is to analyze the pattern of injury, to evaluate the frequency of complication occurred after replantation and to study the functional results of 55 completely amputated parts in 120 patients. **Methods:** A retrospective study based on the observation sheets and surgical procedure, was conducted on patients with traumatic hand amputation at different levels, treated at the Department of Plastic Surgery and Reconstructive Microsurgery of the Clinical Emergency County Hospital from Targu Mures during January 2008 and December 2013. 120 patients treated at Clinical Department of Plastic Surgery, aged 3 to 75, with an average age of 39,92 who experienced traumatic hand amputations were included in the study. Selection of the patients was influenced by many factors, including: the mechanism of the injury, level of the injury, ischemia time and patient's age. In this study were analyzed the indication and contraindication for replantation, the mechanisms of amputation and the surgical outcomes. **Results:** From those 120 patients, 88 were men and 32 women. Was observed a prevalence of amputations in the age group 41-60 years, especially males. Out of the total number of amputations, 55 were complete amputations and 65 were partial amputation. 21 amputations were transmetacarpal, 26 were at the first metacarpophalangeal joint, 23 at the radiocarpal joint and 50 through digits II- V. The most common mechanisms of amputation were: guillotine in 78 cases, avulsion in 31 cases and crush in 11 cases. There was no major immediate and late complications in 83 cases, necroses occurred in 21 cases and in 10 cases appeared vascular complication and there was 6 cases with infections. We observed that hand parts that are amputated by guillotine forces have better reattachment and a lower risk for complications. **Conclusion:** Hand amputations predominantly affects adults around the fourth decade of life. Viability of the replanted part is guaranteed by the successful vessel anastomosis and by the quality of nerves, tendons and bone repair. Results improved with more careful selection of patients and more experience in the technique. The main factor influencing functional result is the type and the mechanisms of amputation.

Key words: Traumatic hand amputations, mechanism of amputation, replantation, postoperative complications.

- 40 **Posterior Circulation Aneurysms - The Role of Surgery.**
Cristina Caterina Aldea, Annamaria Ilyes, Vlad Padurean, Raluca Pascalau, Ioana Marcu.

Introduction: Clipping aneurysms of the posterior circulation is a surgical challenge and is deemed to have poorer results than that of aneurysms of the anterior circulation. This is why some authors advocate that coiling should be the treatment of choice in this location. The aim of this study was to investigate this matter at the level of the Neurosurgery Department of the Cluj County Emergency Hospital. **Methods:** A single center single surgeon retrospective study was conducted by including 660 patients admitted with intracranial aneurysms in the October 1997- December 2013 period. All selected patients underwent surgical clipping of the aneurysms. We divided the subjects into 2 groups: group 1-patient presenting with aneurysm of the anterior circulation and group 2- patient presenting with aneurysm of the posterior circulation. We compared the two groups analyzing the postoperative specific and non-specific complications as well as the Glasgow Outcome Scale (GOS) on discharge. Testing the statistical significance was performed by using the Chi square test and the Wilcoxon-Mann-Whitney nonparametric test. **Results:** Out of the 660 cases admitted to the Neurosurgery Department in the aforementioned period, 40 patients presented posterior circulation aneurysms (6.06%). Out of these 40 cases, the most frequent localization was the basilar apex (45%), followed by the postero-inferior cerebellar artery (35%), posterior cerebral artery (10%) and vertebral artery (10%). The two groups were comparable as we found no significant differences between them regarding the Hunt & Hess grading on admission (Wilcoxon-Mann-Whitney test, $p=0.53$). On discharge, no statistically significant difference was noted between the posterior circulation group and the anterior circulation one regarding neither the complication rate, nor the GOS ($p>0.05$). **Conclusion:** We can safely state that there are no statistically significant differences regarding the outcome of clipping posterior circulation aneurysms as compared to similarly treating the anterior circulation ones. This suggests that the surgical management of aneurysms in this location still remains a valuable treatment option.

Key words: Clipping, posterior circulation, aneurysms, outcome.

- 41 **Surgical Treatment of a Left Atrial Myxoma: Case Report.**
V. Boshnakov, D. Todorov, M. Slavov.

Introduction: Primary cardiac tumors are a rare entity and about 29% of them are myxomas. **Methods:** In this case we present a 72-year-old man with history of fatigue, dyspnea and palpitations who underwent cardiologic evaluation. The physical examination revealed perioral cyanosis and diastolic murmur with presystolic accentuation. The echocardiogram showed 38/47mm pedicled mass in the left atrium causing dynamic mitral stenosis. **Results:** Once the clinical diagnosis was confirmed, surgical excision was indicated. After instituting total cardiopulmonary bypass an oblique right atriotomy was performed, the interatrial septum was incised and the left atrial mass was exposed. The myxoma as well as the adjacent part of the left atrial tissue was removed. The defect on the interatrial septum was closed using an autopericardial patch. **Conclusion:** In the postoperative period, the patient presented without complications and was discharged on the 8th postoperative day.

Key words: Myxoma, cardiac tumor.

- 42 **Delayed Gastric Emptying After Duodenopancreatectomy-A Troublesome Complication: Analysis of 100 Consecutive Cases.**
Beatrice-Adriana Grigorescu, Flavius Dunca Md, Alin Fetti.

Introduction: Delayed gastric emptying(DGE) is one of the most common and troublesome postoperative complications following PD. The risk factors associated with this complication remain controversial. In order to improve outcomes we performed an analysis to quantify the association between risk factors and DGE

in patients after conventional PD, in our surgical department. **Methods:** Starting from 1 January 2012 prospective data comprising patient's chart information were recorded in a standardized database. A statistical analysis was performed for the first 100 cases. Definitions for complications after pancreatic surgery were reported in a standard manner, according to guidelines issued by the International Study Group of Pancreatic Surgery (ISGPS). **Results:** Complication rate was 36%. Post-operative DGE was found in 22 cases (22%). Among the 22 DGE patients, 10 had grade A, 9 grade B and 3 grade C DGE. The multivariate logistic regression analysis showed that the independent risk factors for DGE were post-operative complications (risk ratio [RR] 3,2; $p<0,001$), pancreatic fistula(RR=2,4; $p<0,002$) and antecolic route of reconstruction (RR=2,8; $p<0,02$). On univariate analysis beside the parameters already mentioned were: presence of diabetes mellitus as a comorbid condition and surgeon's experience in pancreatic surgery quantified as case-volume. **Conclusion:** The method of alimentary reconstruction influenced the occurrence of DGE. This common surgical complication can be regarded as a epiphenomenon after PD. Further strategies need to be implemented to reduce the burden of complications and optimize outcomes after major pancreatic surgery.

Key words: Duodenopancreatectomy, delayed gastric emptying, antecolic reconstruction, risk factors.

- 43 **State of the Art Cardiac Surgery; Minimally Invasive CABG.**
Marcus Jee Poh Hock, Vera Catarina Barnabe, Gallaby Kaiser, Ong Wee Liam, Mihaela Budrescu.

Introduction: The prevalence of coronary heart diseases(CHD)is drastically increasing due to the risk of the lifestyle changes in the general population today. However, how many of these patients could undergo such an operation with today's increased medical cost? let aside the recovery time of the patient? At the same time, minimizing, the infection and mortality rate. Our objective? The Technique:"Mini CABG". **Methods:** In August 2012 the authors traveled to India for a month and had the opportunity to research and collect data from the developer of this technique himself. This technique is a modified version of the classical CABG, reducing its incision length to only 6cm compared to its predecessor of 14 cm, and refusing the use of a heart-lung machine thus operating on a beating heart which physiologically produces better recovery time. Also There is no more need for a sternotomy thus reducing the pain scale and the length of hospital stay. The technique, starts as a 6cm incision at the 4th intercoastal space or at the midline, clamps and insertion of the Marquet Stabiliser, then the repair of the artery is done not via the vein from the leg but rather the internal mammary artery(longer lasting graft, after all repairs are made, removal of all apparatus and a closing stich is made. All within 1-2 hours. **Results:** The "Mini CABG" technique that we are researching targets all the aberrations of a conventional CABG. Additionally producing better results not only on a medical scale but also on a socio-economic level including reduced cost(10x less), recovery time(3weeks only), pain score(3/10), admittance period(3-5 days), surgical duration(1-2 hours maximum), infection rates(0.22%), nil usage of heart-lung device, incision length(6CM ONLY), nil or partial sternotomy, massive decrease of blood transfusion needed. As Such, with lower risk of infection and a smaller scar, less recovery time and pain, decreased bleeding risk, mortality rate decreased, and finally a much lower cost gives an unprecedented result of an improved quality of life to our patients. **Conclusion:** Our Objective was to find a solution to all the above problems and based on the data and results of our findings upon This new and yet revolutionary technique the "Mini CABG", it proves superior to the conventional CABG in every aspect possible. We highly recommend that the standard protocol along with its indications should be altered in the coming future based on all its advantages.

Key words: CABG, Cardiac Surgery, Mini CABG, Open Heart Surgery, Coronary artery bypass grafting.

44 Robot-Assisted Radical Cystectomy with Intracorporeal Ileal Neobladder. Initial Experience.

Roxana Andra Coman, Andrei Boc, Nicolae Crisan.

Introduction: Open radical cystectomy (ORC) with extended pelvic lymph-node dissection represents the treatment of choice for muscle-invasive and high-risk non-muscle-invasive bladder cancer. The interest in minimally invasive techniques and robot-assisted radical cystectomy is growing in medical centers worldwide. We present the initial experience and short term outcomes of the robot-assisted radical cystectomy. **Methods:** Between January 2010 and April 2013, we performed 11 robotic radical cystectomies for infiltrating bladder tumor (10 men and 1 woman). In six patients, the urinary diversion used was Studer ileal neobladder. In three cases the neobladder was created extracorporeal and in the remaining 3 patients totally intracorporeal. We assessed the perioperative parameters (operating time, blood loss, and complications), oncological results (positive margins, number of lymph nodes) and functional results (continence, erection, kidney function) at 6 months postoperatively. **Results:** The duration of surgical procedures for the 3 intracorporeal ileal neobladder procedures amounted to 725 minutes, 550 minutes and 490 minutes, while blood loss added up to 450 ml, 600 ml and 350 ml. There were no positive margins. We performed extended pelvic lymphadenectomy, along with the excision of 16, 19, and 23 lymph nodes, all of them being negative. Daytime and night-time continence was partially preserved, as patients used one pad/day and one pad/night. Nerve sparing technique was used for patients 2 and 3, as they presented erections under PDE 5 inhibitors. Postoperative imaging evaluation at 6 months showed normal appearance of the pyelocaliceal system without local or distant recurrence. **Conclusion:** Robot-assisted radical cystectomy with intracorporeal ileal neobladder is a feasible and safe technique for the treatment of infiltrating bladder cancer, with minimal morbidity and comparable oncological and functional results.

Key words: Bladder cancer, robotic surgery, radical cystectomy, intracorporeal ileal neobladder, continence.

45 Robotic Assisted Laparoscopic Pyeloplasty- An Alternative Technique to the Open Pyeloplasty in Management of the Ureteropelvic Junction Obstruction.

Cristian Porumbel, Cristina Ivan, Sergiu Nicolescu, Nicolae Crisan.

Introduction: The gold standard treatment for pyeloureteral junction obstruction is dismembered Heynes Anderson pyeloplasty with the intent of complete excision of the obstruction. Minimally invasive approaches (laparoscopy and robotic-assisted laparoscopy) in the recent years have allowed for reconstructive surgery that proves them serious competitors to the open surgical technique in the standard treatment of ureteropelvic junction obstruction. **Methods:** From 2010 to 2013, 28 patients diagnosed with hydronephrosis due to pyeloureteral junction syndrome, underwent surgery as follows: 13 underwent retroperitoneal pyeloplasty assisted by the Da Vinci Si FULL HD surgery system and 15 underwent open pyeloplasty. In 27 patients, the Hynes Anderson technique was performed and one with Fenger technique. From the robotic pyeloplasty 9 had double J stent and 4 had nephrostomy. From the open pyeloplasty group 14 had nephrostomy and 1 double J stent. The localisation of the obstruction was on the right ureter in 9 patients, and of the left one in 18 patients. One patient had a bilateral ureteral obstruction. The patients average age was 21 years, ranging from 1 to 74 years old. The prior investigations used were intravenous urography and renal scintigraphy. Regarding the cause, 23 patients have been identified with an intrinsic obstruction and 5 patients with polar renal vessels (extrinsic cause). Four patients had prior renal calculi (1 underwent open pyeloplasty and the rest robotic assisted laparoscopic pyeloplasty). Three retroperitoneal laparoscopic ports were placed for the robot using a dissection balloon, and a fourth port was used by the assistant. All procedures were successful on the basis of the subjective and radiographic data. **Results:** The mean operating time was 95 minutes for the robotic pyeloplasty and 145 minutes for the open pyeloplasty. Early mobilization in the first 24 hours observed at

the robotic approached patients versus 48 hours in the open group. Intraoperative blood loss was minimal for both technical approaches. Double J stent was used suppressed on average after 28 days for the robotic group. Nephrostomy suppressed on average after 21,7 days for the open group. Median hospital stay was 18 days for open pyeloplasty and 14 days for robot-assisted pyeloplasty. Urinary fistula occurred at 4 patient who underwent open pyeloplasty and one case of relapse. Intravenous urography performed 6 months after surgery for surveillance. **Conclusion:** The results of the robotic pyeloplasty were found to be promising, considering the benefits of shorter hospitalization, rapid convalescence, improved cosmetic and functional results making it a safe, feasible, and effective technique.

Key words: Pyeloplasty, robotic laparoscopy, noninvasive.

POSTER Presentations:

01 A Multiphasic-Multidisciplinary Management of Post-Gastrectomy Complications.

Florin Lucuța, Răzvan Tirpe, Tareg Al Momani.

Introduction: The complications of total gastrectomies occur in about 10-15% of cases. The most frequent complications are: fistulas, stenosis at the anastomotic site, internal hemorrhage, and infectious complications. 1-3% of complications are fatal. Complications management is complex, due to the fact that every treatment method has its own complications. Complications encountered will depend on the treatment method used by the clinician. **Case history:** A 67-year old male patient diagnosed with gastric adenocarcinoma. A total gastrectomy with Roux en Y esophago-jejunal anastomosis is made, with a D2 lymphadenectomy and a feeding jejunostomy. Ph 1: In days 7, 9, and 22 postoperatively: Pancreatic (P), Duodenal stump (D), Esophago-Jejunal (E-J) anastomosis fistula respectively, drained externally. Ph 2: For the following 4 months the patient presents repeatedly with dysphagia. Ph 3: 26 days after the last (3rd) metallic stent placement, the patient presents with symptoms of intestinal occlusion. **Investigations:** Ph1: Multiple US's: no collection into the abdominal cavity. CT scan: E-J anastomosis fistula. Ph2: Upper endoscopies and barium swallows: anastomotic stenosis. Ph3: Upper endoscopy: tight inferior esophageal stenosis and metallic stent migration. Postop: CT scan-permeable E-J anastomosis without fistula. **Treatment/Results:** Ph1: P and D fistulae: conservative treatment. A metallic stent was placed at the site of the E-J anastomosis. Ph2: The E-J anastomosis fistula was treated and resolved with an Endoscopically mounted covered metallic stents. Ph3: Occlusions managed with distal oesophagectomy and segmental enterectomy. **Discussion:** After last discharge: patient had a favorable evolution-normal intestinal transit, oral feeding and weight gain. Interdisciplinary collaboration was an essential factor in patient surviving post-gastrectomy complications.

Key words: Total gastrectomy, complications, covered metallic stent migration, multidisciplinary manage.

02 Sensitivity to. Geusa Bezerra.

Introduction: The. **Case history:** Define. **Investigations:** Retros. **Treatment/Results:** Records. **Discussion:** This.

Key words: Blad.

03 Nasal Discharge and Obstruction in a Child Presenting with Bacterial Meningitis.

Jana Van Der Veen, Simon Thorne.

Introduction: This is an interesting case of a child who presented with severe meningitis and unilateral purulent nasal discharge. Foreign body in the nose was found later. This must have been here for long time and was probably cause of her meningitis. It was missed on initial assessment as child was too unwell and imaging which

was done did not include nose and paranasal sinuses. This case represents the importance of examination, history taking and possible severe complications of foreign body in nose. **Case history:** A 7 years old child presented with severe bacterial meningitis and pneumococcal septicemia following an upper respiratory tract infection. Child required intubation with ventilatory support and admission to pediatric intensive care unit due to seizures and dropping GCS. Patient was treated with intravenous antibiotics, steroids and anticonvulsants. Two CT scans of head were performed describing normal findings and one MRI scan of brain which showed shallow subdural effusions in keeping with meningitis. Child recovered fully and was discharged home. She continued to experience severe upper respiratory problems with thick nasal discharge. Patient was referred to ENT outpatient clinic. **Investigations:** Patient was given 6 weeks of oral antibiotics for chronic rhinosinusitis. On follow up there was persistent purulent rhinorrhea from right nostril. In view of findings CT scan of paranasal sinuses was organized. CT scan showed a ring shaped radiopacity in the middle meatus. **Treatment/Results:** Examination of nose under general anesthetic was organized. A calcified elastic hair band was found and removed followed by right middle meatal antrostomy to drain the sinus. Antibiotics and topical steroids were given to improve symptoms. **Discussion:** In child presenting with unilateral nasal discharge foreign body in nose is highly suspicious. Child presenting with meningitis and preceding nasal discharge should be investigated further to assess nose and paranasal sinuses to exclude foreign body.

Key words: Foreign body nose, meningitis, CT scan, unilateral nasal discharge.

04 Syncope Due to Pacemaker-Mediated Tachycardia in a Patient with DDD Pacemaker.

Lazăr Izabela, Cismaru Gabriel.

Introduction: H.G.F., a 69 years old male patient transferred to the Rehabilitation Hospital in Cluj-Napoca from Emergency Hospital Zalău with low tolerance at effort, dyspnea and an episode of loss of consciousness in the hospital. He went to the hospital complaining of mixed dyspnea, wheezing and productive cough. **Case history:** In the patient's medical history were present: a complex surgical intervention (closure of sinus venous type ASD with Dacron patch, anuloplasty of mitral valve for P2 scallop flail, aorto-coronary bypass with VSG on LAD, atriocavoplasty, reinsertion of pulmonary veins in left atrium), a second mitral valve repair and tricuspid anuloplasty, nonsustained ventricular tachycardia, pacemaker implantation for sick sinus node disease. **Investigations:** Electrocardiogram revealed wide complex tachycardia initiated by a premature ventricular contraction and the pacer spikes appearing prior to each QRS complex. Interrogation of the pacemaker confirmed endless loop tachycardia. **Treatment/Results:** The tachycardia was controlled by prolonging the post ventricular atrial refractory period. Treatment, prevention and termination of pacemaker-mediated tachycardia typically involves altering the pacemaker programming to prevent sensing of the retrograde P wave. **Discussion:** This was a complex case with pacemaker-mediated arrhythmia, with multiple heart surgeries. Differential diagnosis of wide complex tachycardia in a patient with depressed left ventricular ejection fraction with a history of ventricular tachycardia.

Key words: Endless loop tachycardia, DDD pacemaker, syncope.

05 Low-Flow, Low-Gradient Aortic Stenosis in a Patient with Depressed Left Ventricular Function and Comorbidities.

Kormos Nicholas, Cismaru Gabriel.

Introduction: The aim was to evaluate the severity of low-flow, low-gradient aortic stenosis (AS) in a patient with depressed left ventricular (LV) function and comorbidities. We present the case of a 63 years old male patient, P.I., admitted to the Rehabilitation Hospital, complaining of dyspnea at minimal levels of effort, paroxysmal nocturnal dyspnea and bilateral lower limb claudication. **Case history:** The patient was a former smoker, known with degenerative aortic stenosis, ischemic cardiomyopathy, myocardial infarction in 2008,

mitral insufficiency, a left iliofemoral bypass for chronic ischemia of the lower limb, surgery for descendent colon polyps, medial evagination and hemorrhagic gastritis both treated surgically. **Investigations:** Blood tests, electrocardiogram (ECG), Dobutamine stress echocardiography, coronary angiography were undertaken. EuroSCORE II and STS score were calculated. **Treatment/Results:** Dobutamine stress echocardiography showed increased transvalvular flow and gradients across the aortic valve. Ejection fraction measured by Simpson method increased from 26% at rest up to 33% following Dobutamine administration. EOA (effective aortic valve area) at rest increased insignificantly. **Discussion:** Final diagnosis was severe aortic stenosis with preserved contractile reserve. Stress echocardiography helps in differentiation of fixed versus low flow-low gradient and pseudo severe aortic stenosis. A surgical valve replacement was issued.

Key words: Low-flow, low-gradient aortic stenosis, Dobutamine stress echocardiography.

06 Lupus Systemic Erythematosus, Antiphospholipidic Syndrome and Infection- Risks on Pregnancy.

Turta Teodora, Ileana Cosmina Filipescu.

Introduction: A 21-year-old woman with a history of systemic lupus erythematosus (SLE) and antiphospholipidic syndrome (APS) presents to our unit in May 2013 with amenorrhea for 7 weeks, a 3 day fever, fatigue, and a patchy erythema in the right gluteal area, typical for a varicella-zoster virus infection. Physical examination revealed 0.5 cm, bilateral inguinal lymph nodes, sensitive on the right side. **Case history:** The patient first presented to the hospital in 2010 with arthralgia, fever, dyspnea, fatigue, anemia, important inflammatory syndrome and positive Antinuclear Antibodies. She was diagnosed with SLE and treated with Hydroxychloroquin (HQ) and corticosteroids, but was non-compliant with her treatment. In 2011, she presented with a spontaneous abortion at 6 weeks of pregnancy. After laboratory investigations, she was diagnosed with antiphospholipidic syndrome. In 2012, she presented with purpura and agranulocytopenia and her treatment was changed to Imuran, Prednison, Aspenter, Aspacardin, Ca and vitamin D. **Investigations:** Laboratory examinations showed a severe inflammatory syndrome, thrombocytopenia, leucopenia, low levels of C3, C4 and highly positive Antinuclear Antibodies, ADN ds and Anti SSA (Ro). **Treatment/Results:** Her background therapy was changed to Plaquenil, plus i.v. and topic Acyclovir. She was also explained pregnancy-associated risks, involving herself and the baby. **Discussion:** Management of pregnancy in patients with SLE and APS is challenging, firstly because of the symptoms, secondly because of the treatment and thirdly because of the complications. It is a tough call: should she continue or end the pregnancy?.

Key words: Systemic lupus erythematosus, antiphospholipidic syndrome, varicella zoster virus, pregnancy.

07 Unusual Localization of Burkitt Lymphoma. Case Report.

Bianca Petresc, Cristina Andrada Pindaru.

Introduction: T.L, 38 years, male; SIGNS AND SYMPTOMS -upper abdominal pain, nausea, vomiting, bloating, loss of appetite, early satiety, weight loss (8kg in 2 weeks), diaphoresis, excessive thirst, fatigue, decreased effort tolerance, excessive daytime sleepiness. PHYSICAL EXAM: pallor, small, painless bilateral laterocervical, submandibular adenopathies, diffuse goiter, tachycardia(110 b/min), tachypnea, basal stony dullness, upper abdominal tenderness. **Case history:** November 2013: multiple episodes of crampy abdominal postprandial pain, bloating. General Practitioner's Diagnosis: Peptic Ulcer Hp +. Treatment: PPI, amoxicillin, claritromicin- 7 days. Consultant Endocrinologist: TSH ↓, fT4 ↑ -> Hyperthyroidism, Cortisol ↑, ACTH ↑ -> Cushing syndrome. Highly intense, persistent collicative abdominal pain, vomiting and impairment of intestinal gas transit. Weight loss: 8 kg in 2 weeks, diaphoresis, palpitations, shortness of breath, anxiety, insomnia. 3 episodes of melena -> Department of Gastroenterology, Medical 1, Cluj. **Investigations:** US: Hypochoic adrenal masses .AS-

cites, solid structures on the peritoneum. EGD, CS: Thickened digestive tract wall, mucosal pseudonodules. Adrenal, Gastric, Duodenum histology: monomorphic lymphoid cells with proliferative and apoptotic activity. "Starry sky" appearance-> Burkitt lymphoma IHC: LCA, CD20, Ki67. **Treatment/Results:** 11.12:Rituximab 12.12:ICU:lumbar puncture: lymphomatous meningitis->antibiotics, antifungals, diuretics, uricosurics, PPI, parenteral nutrition R-HyperCVAD regimen:2 intratecal administrations ->bone marrow aplasia, OTI norepinephrine, hematological support 24.12: sudden cardiac arrest->death. **Discussion:** Rare type of Non-Hodgkin lymphoma: Burkitt lymphoma, Pluriorganic failure, including CNS, Tumoral lysis syndrome, Rapid evolution of disease, Rare localization of Burkitt lymphoma: adrenal and thyroid glands, Absent risk factors.

Key words: Abdominal pain, Burkitt lymphoma, Non-Hodgkin, adrenal and thyroid localization, R-HyperCVAD, Rituximab.

08 6 Years of Unknown Myalgias Turned Out to be Poems Syndrome.
Cristina Andrada Pindaru, Bianca Petrescu.

Introduction: P.C, 43 years old, male -Myalgias, arthralgias, muscular weakness, chest pain radiating down the right arm associated with numbness, tingling: upper and lower limbs, motor dysfunction, tinnitus, vertigo, fatigue, genitourinary dysfunction, grade III obesity, hyperpigmentation: right hemiabdomen, dorsal side of hands, small, painful retrocervical lymphnodes, spinal percussion: diffuse pain, goiter, right hemiparesis, hypoesthesia: upper, lower limbs, hyper-tonia: upper right limb, right positive Babinsky reflex. **Case history:** 2006: myalgias, arthralgias, muscular weakness, fatigue -> Medicalal V -> EMG -> Miastenia gravis excluded, abdominal US: nonalcoholic steatohepatitis, hepatic hemangioma. Consultant Endocrinologist : Hypothyroidism with myxedema. 2008-2011: Infectious Diseases Hospital: investigations for Boreliosis, Trichinosis, HIV, CMV, HVB, HVC : negative, April 2012: palpitations, fast, irregular heartbeat, chest pain -> Department of Cardiology : Medicalal 1. Diagnoses: Supraventricular extrasistole. Blood tests: hepatocytolysis and anemia -> Department of Gastroenterology, Medicalal 1. **Investigations:** Blood tests: ESR ↑, anemia, total proteins ↑, IgG ↑, albumin ↓, TGO, TGP ↑. Electrophoresis: β fraction ↑, A/G ratio ↓, Bence Jones protein (urine) Immunofixation: monoclonal IgG, oligoclonal λ chains. US: hepato-splenomegaly. Skull Xray: small, polycyclic lytic lesions. Bone marrow biopsy: plasma cell infiltrate 100%. **Treatment/Results:** Patient was transferred to the Department of Hematology. He began chemotherapy regimen with Velcade, Cyclophosphamide and Dexamethasone. The standard treatment for POEMS syndrome is 8 cycles of chemotherapy followed by autologous stem cell transplantation. **Discussion:** Young age, Neurological onset, Late diagnoses: 6 years of progressive symptoms POEMS syndromes: Polyneuropathy+ Organomegaly (liver, spleen), Endocrinopathy (hypothyroidism, gonadal endocrinopathy)+Monoclonal Proteins(IgG)+Skin abnormalities(hyperpigmentation).

Key words: Multiple Myeloma, Polyneuropathy, POEMS Syndrome, autologous stem cell transplantation.

09 Infantile Bronchopneumonia: Diagnosis on the Edge of Life.
Sirbe Claudia, Munteanu Andreea.

Introduction: G.D., a 3 month old infant, was admitted to „Axente Iancu” Pediatric Hospital in the Emergency Unit for spastic cough, rhinorrhea and nasal obstruction. The baby was afebrile and increasingly fussy. The physical examination revealed a dysmorphic pale patient, suffering from expiratory dyspnea, severe bradipnea, wheezing, intercostal retractions and grunting. Auscultation spotted subcrepitan and sibilant rales. **Case history:** G.D. was underweight (3.5 kg) and presented difficulty in feeding. The patient's history displayed severe aortic stenosis, left ventricular hypertrophy and persistence of ductus arteriosus. Arterial blood gas values showed low pH (pH=7.282), hypercapnia (pCO₂=56.2mmHg) and severe hypoxemia (pO₂=32.8 mmHg) which indicated respiratory acidosis. Oxygen therapy was immediately administered resulting in a minor improvement of his clinical condition. Further investigations showed

no signs of cardiac distress. He was transferred to the Intensive Care Unit with acute respiratory failure. **Investigations:** Blood tests revealed megaloblastic anemia, thrombocytosis and leukocytosis with no other signs of an inflammatory syndrome. Chest radiography displayed bilateral generalized hyperinflation, with multiple small nodular opacities which tended to be patchy and confluent. **Treatment/Results:** The patient was treated with oxygen therapy, epinephrine aerosol, Ventolin aerosol and intravenous cortisone hemisuccinate for the acute respiratory failure. Administration of Ampicillin and Gentamicin intravenous was considered for an infectious syndrome. The clinical condition improved in 1 week. **Discussion:** Considering the fragile age, the association between cardiac malformation and bronchopneumonia, increases the risk of mortality. Bacterial respiratory infection mistaken for bronchiolitis, postpones the diagnosis and the full recovery.

Key words: Bronchopneumonia, acute respiratory failure, respiratory acidosis, aortic stenosis.

10 Role of Spiral Enteroscopy in the Long-Term Management of Hereditary Intestinal Polyposis Syndrome: A Case Report.
Nicolae Voicu Rednic, Julia Marton.

Introduction: A 27-year-old woman diagnosed with Peutz-Jeghers syndrome (PJS) from the age of 18, presented for a follow-up. She did not show up to any of the scheduled control since the diagnostic, 9 years ago. The patient accuses no symptoms at presentation. Her father died several years ago due to a complication of the same disease. The physical examination revealed pigmented perioral spots and an abdominal median scar, on the linea alba. No abdominal tenderness or other pathological signs were found. **Case history:** The patient's disease history began with abdominal pain and constipation 9 years ago. She underwent surgery (bowel obstruction), where an intestinal intussusception was observed and 1.5 meters of small intestine were removed. Given the family history and the hamartomatous polyps found, she was diagnosed with PJS. She had no symptoms since then. Because of the long time without any follow-up examinations, a full checkup was performed. Upper GI endoscopy was normal. Colonoscopy revealed 2 pedunculated polyps of 2.5 cm each on the sigmoid colon; polypectomy was performed with no further complications. Biopsy showed hamartomatous polyps with no malignancy. **Investigations:** A video capsule endoscopy (VCE) was necessary to assess the small bowel, as current guidelines demand. VCE revealed a large polyp in the proximal jejunum and many smaller ones in the distal jejunum. Spiral enteroscopy (SE) was the chosen method to perform the small bowel polypectomy. **Treatment/Results:** A few more pedunculated and sessile polyps than described by the VCE were found beyond the ligament of Treitz. Using SE we performed snare polypectomy; all polyps were removed without complications. Biopsies showed PJS polyps without dysplasia or carcinoma. The patient entered a monitoring program. **Discussion:** Because of the increased risk of cancer, the patients with PJ syndrome need surveillance and removal of suspect polyps. SE has better results in finding small bowel tumors than VCE. This is the first case in Romania of PJ polyps treatment using SE.

Key words: Spiral enteroscopy, Peutz-Jeghers syndrome, hereditary intestinal polyposis syndrome, screening.

11 Celiac Disease and Pollen Allergy.
Boarescu Paul Mihai.

Introduction: Allergy and celiac disease are multifactorial diseases caused by genetic and environmental factors. Food represents the most frequent cause of allergy in childhood, but is rare in adults. Pollen is a major cause for allergic respiratory diseases. Patients with allergic rhinitis to pollen may develop digestive symptoms, due to cross-reactivity between allergens from pollen and fresh fruits and vegetables. It is important to know the patterns of cross-reactivity to understand the clinical status. **Case history:** A 42yo female patient presented to Allergology office for chronic diarrhea and joints pain. The clinical examination revealed intermittent keratotic lesions on

the hands. The symptoms started 8 years ago. For 3 years was treated as irritable bowel syndrome with lbutin 300 mg/day. Because the symptoms persisted an endoscopy with D2 biopsy was performed and diagnose of celiac disease was established. She was treated with gluten-free diet in the last 5 years, with no symptoms for 4 years interval. In the last year the patient has presented diarrhea and weight loss. Diarrhea was more intense after she ate some fresh salad. The patient has also rheumatoid arthritis without chronic treatment. **Investigations:** Skin prick test has performed to determine the sensitivity to food or respiratory allergens and revealed sensitization to artemisia vulgaris pollen. Total IgEs were 214 UI/ml and anti gliadin antibodies were positive. An endoscopy with D2 biopsy confirmed the diagnose of celiac disease. **Treatment/Results:** Patient followed a gluten-free diet and also excluded the following fresh vegetables and fruits: celery, carrots, parsley, parsnips, chives, white pepper, paprika, peach, banana, melon, mango, sunflower seeds, peanuts. After 2 month of diet the symptoms and skin lesions were improved significantly. **Discussion:** In patients with celiac disease identifying the aggravating factors like atopy and sensitization to allergens might be useful to manage properly the case, without any kind of pharmacological treatment.

Key words: Cross-reactivity, celiac disease, pollen allergy.

12 The Management of an Ileal Dieulafoy Ulcer Associated with Massive Hematochezia: The Role of Spiral Enteroscopy.
Mucileanu Adrian, Mocan Tudor.

Introduction: R.R., 27 years old male patient, was admitted in the Regional Institute of Gastroenterology and Hepatology Cluj-Napoca in January 2014 for melena alternating with hematochezia. Physical examination revealed paleness, hypotension and tachycardia. **Case history:** The patient was known with type A hemophilia and recurrent episodes of lower gastrointestinal (GI) bleeding, spontaneously remitted. Upper GI endoscopy and lower GI endoscopy revealed no lesion. Emergency spiral enteroscopy using antegrade approach was negative, but at retrograde approach in the terminal ileum, at 40 cm from ileocecal valve, a bleeding Dieulafoy's ulcer was found. **Investigations:** Laboratory findings revealed severe iron deficiency anemia. **Treatment/Results:** The blood loss and coagulation deficit were treated by administration of two units of blood and one unit of fresh frozen plasma. Using spiral enteroscopy the hemorrhage was stopped by clipping. The patient was discharged, 2 days after the procedure. **Discussion:** This case was the first Dieulafoy ulcer diagnosed and treated by spiral enteroscopy in Romania. Capsule enteroscopy could be an alternative to spiral enteroscopy for diagnostic purpose but unfortunately it can't perform therapy.

Key words: Spiral enteroscopy, Dieulafoy ulcer, obscure gastrointestinal bleeding, hemophilia type A.

13 Intestinal Tuberculosis: A Source of Cryptic Symptoms and Frequent Misdiagnosis.
Gelu Radu Simu, Lavinia Patricia Trică.

Introduction: P.G., a 58-year-old male patient, was admitted to Octavian Fodor Regional Institute of Gastroenterology and Hepatology for colicky-type recurrent abdominal pain, abdominal distention, diarrhea, associated with vomiting and fever. The physical examination revealed an ill, anemic and emaciated patient (massive weight loss - over 12 kg in 3 months), with malabsorption syndrome, ascites and anasarca. The patient was afebrile and his vitals were normal, with marked tenderness in right iliac fossa. **Case history:** The patient was an institutionalized male (stage II oligophrenia), previously diagnosed with recurrent episodes of intestinal subocclusion (without an evident etiology), megaloblastic anemia and moderate to severe mitral valve insufficiency. The abdominal pain, diarrhea and vomiting have gradually worsened during the last year, P.G. having been an inpatient in several territorial gastroenterology services, without clinical improvement. The overall clinical interpretation indicated a patient with subocclusion syndrome, severe malabsorption and alarm symptoms due to the massive weight loss. **Investigations:** Lab tests

showed severe hypoalbuminemia; no stool or ascites fluid bacterial infection. CT enterography revealed a 6 cm terminal ileum stricture with thickened walls and intense contrast enhancement. Colonoscopy spotted an ulcerative terminal ileum stricture; cultures for tuberculosis were positive. **Treatment/Results:** The patient had no evidence of active pulmonary tuberculosis. He was started on standard anti-TB drugs, and supportive care including a hypercaloric, hyperproteic diet and i.v. albumin. His clinical status improved within 2 weeks, with complete remission of ascites, diarrhea and vomiting. **Discussion:** Tuberculosis is still a differential diagnosis for Crohn's disease, cancer and appendicitis in Romania. Interestingly, the case displayed a primary intestinal lesion, the terminal ileum being the only segment affected, without involvement of the caecum.

Key words: Tuberculosis, ileon, malabsorption syndrome.

14 Small Bowel Angiosarcoma: A Shooting Star in Gastroenterology.
Iulia Elisabeta Rotaru, Robert Szabo.

Introduction: D.R.C, a 35 year - old male, with prior lumbar-sacral discopathy, presented with complains of lethargy, weakness and a four days history of melena. Physical examination revealed a relatively hemodynamically stable patient, with pallor and soft, nontender abdomen. The patient was admitted to „Octavian Fodor” Gastroenterology and Hepatology Institute, Cluj-Napoca. **Case history:** Patient presented with an insidious onset of lethargy, weakness and melena. Initial laboratory tests revealed iron deficiency anemia (haemoglobin 6.7 g/dl), leucocytosis and neutrophilia. Upper gastrointestinal endoscopy showed a Dieulafoy lesion, with acute bleeding in the gastric antrum and distal duodenum. Hemostasis was achieved using metallic clips and sclerotherapy. Despite endoscopic treatment and blood transfusions, the haemoglobin levels dropped and melena persisted. Colonoscopy showed diffuse mucosal bleeding in the colon and distal ileum. CT enterography detected thickened walls of distal ileum and hepatic nodules, raising the suspicion of an ileal tumour with liver metastasis. **Investigations:** Spiral enteroscopy revealed Dieulafoy lesions in the proximal and distal jejunum. A 5cm polypoid mass with oozing bleeding was detected in the distal ileum. Microscopic examination and immunohistochemical analysis for endothelial markers CD31, CD34 and factor VIII-associated antigen were performed. **Treatment/Results:** Histopathologic investigation suggested a multicentric epithelioid angiosarcoma of the small bowel. Partial enterectomy was subsequently performed and multiple blood transfusions were administered. Chemotherapy with gemcitabine and docetaxel were indicated if haemoglobin level raised above 8g/dL. **Discussion:** Small bowel angiosarcoma in a young male is exceedingly rare and has a poor prognosis; our patient died within the postoperative period. Diagnosis may be challenging due to nonspecific symptoms and variable histological features.

Key words: Small intestine, angiosarcoma, liver metastasis, recurrent gastrointestinal bleeding.

15 Could Persistent Cryptogenic Hepatitis Be an Indicator of a Complicated Celiac Disease?.
Robert Szabo, Iulia Elisabeta Rotaru.

Introduction: C.N, a 52 year old female, known with cryptogenic hepatitis and celiac disease, presented with melena, weight loss, abdominal pain, bloating, itching and fatigue. Physical examination revealed pallor, tender and distended abdomen, signs of ascites and edema of the lower extremities. The patient was admitted to „Octavian Fodor” Gastroenterology and Hepatology Institute in January 2014. **Case history:** The patient was diagnosed with celiac disease (CD) in February 2012 and on a gluten free diet since then. She presented in Nov 2012 with diarrhea, weight loss, poor nutritional status, ascites and lower limb oedema. Blood tests showed raised inflammatory markers, hypoalbuminemia and elevated liver enzymes. Spiral enteroscopy (SE) with biopsies identified ulcerative jejunitis. Prednisone and gluten free diet were prescribed. In Sep 2013, the patient returned with persistent symptoms. Endoscopic findings and histology led to the diagnosis of type II refractory celiac disease

(RCD). Imuran (100mg/day) was prescribed. In Jan 2014, she returned with worsened symptoms and melena. **Investigations:** During 2014 workup, CT detected thickened jejunal walls and mesenteric adenopathy. Videocapsule revealed jejunal ulcerations and acute bleeding. SE with biopsy was indicated to differentiate type II refractory celiac disease from an enteropathy associated T-cell lymphoma (EATL). **Treatment/Results:** Biopsy revealed RCD and excluded a T-cell lymphoma. The treatment with Imuran was stopped and corticotherapy was again initiated. The malabsorption syndrome slightly improved, with disappearance of ascites and edema, but without improvement in the nutritional status. **Discussion:** Cryptogenic hepatitis may be revealing of CD and early testing can prevent the onset of RCD. Our case is an important illustration why ulcerative jejunitis is one of the most severe complication in CD, being considered as a premalignant condition.

Key words: Celiac disease, enteropathy associated T-cell lymphoma, spiral enteroscopy.

16 Ectopic Pancreatitis of the Jejunum and Mesentery: An Uncommon Cause of Gastrointestinal Bleeding.
Lavinia Patricia Trică, Gelu Radu Simu.

Introduction: M.I., a 76-year-old male was admitted to Octavian Fodor Regional Institute of Gastroenterology and Hepatology for diffuse abdominal pain and chills. On examination, the patient was febrile and his vitals were normal. The physical examination showed marked tenderness in the left flank and iliac fossa and hepatomegaly. Bowel sounds were present. **Case history:** The patient's history revealed idiopathic hypertension and no background of peptic ulcer disease, weight loss or bowel motility disorder. On initial work up, patient's leukocyte count was 19,900/mm³. Further examination exposed hyperglycemia, dyslipidemia and elevated inflammatory markers. Colonoscopy showed a benign colon polyp and uncomplicated sigmoid diverticula. Oral contrast CT scan identified a tumor in the proximal small bowel mesentery, arising from the proximal jejunum, with mesenteric fat infiltration. During investigations the patient developed hematochezia and melena with clinical deterioration, so he was transferred to the ICU. **Investigations:** Emergency exploratory laparotomy identified a 5x5 cm, firm, irregular, pale tumoral mass on the second jejunal loop, accompanied by a mesenteric ganglion block. Histologically, the specimen showed ectopic pancreatic tissue involving the jejunum submucosa, with focal cytosteatonecrosis. **Treatment/Results:** The mass with the overlying adherent jejunum was resected, resulting in a favorable clinical evolution. No complications had occurred, therefore the patient achieved full recovery and was discharged after 7 days. **Discussion:** As far as we know this is the first case of ectopic pancreas complicated with both acute pancreatitis and GI bleeding. Acute pancreatitis was probably due to mesenteric ischemia while jejunum mucosal ulceration may be responsible for the GI bleeding.

Key words: Ectopic pancreas, Acute pancreatitis, Jejunum, Gastrointestinal hemorrhage, Computed tomography.

17 Combined Hepatocellular Carcinoma and Cholangiocarcinoma: A Case Report.
Mocan Tudor Ioan, Mureşan Mădălina Andreea.

Introduction: We report the case of a 80-year-old male, S.N., who was admitted to the Octavian Fodor Regional Institute of Gastroenterology and Hepatology for a 4-week history of progressive jaundice and weight loss. Moreover, he described pruritus, dark urine and pale stools. During the last 3 months, he had complained of repetitive bouts of right upper abdominal pain with fever. Physical examination showed tenderness of the right upper quadrant and hepatomegaly. **Case history:** The patient was known with chronic hepatitis B infection. Laboratory findings revealed hepatic cytolysis, cholestasis, obstructive jaundice and mixed dyslipidemia. The AFP level was normal and the CA 19-9 level was elevated at 153 IU/ml. On abdominal ultrasound, the intrahepatic bile ducts were slightly dilated with a liver hilum tumor. Contrast ultrasound was performed

with contrast enhancement in the early phase followed by contrast wash out in the parenchymal phase. Based on these findings, we suspected that the tumor was a HCC. ERCP showed a filling defect of the hepatic duct. During ERCP we performed intraductal ultrasonography (IDUS), which showed an intraductal polypoid tumour. **Investigations:** Microscopically, the tumor showed poorly differentiated adenocarcinoma arranged in a gland-like structure with rich stroma, which suggests combined HCC and CC. Immunohistochemical examination was positive for cholangiocarcinoma and hepatocellular markers (ck7, mucin and pCEA). **Treatment/Results:** The diagnosis of intraductal mixed hepatocellular-cholangiocarcinoma (cHCC-CC) was established. Palliative biliary drainage with plastic stent was performed. The patient was alive after follow-up for 5 months without evidence of recurrence and metastasis. **Discussion:** Many aspects of cHCC-CC remain inconclusive due to its rarity. Reaching an exact diagnosis is challenging, ergo cHCC-CC is often missed. Usually it is managed as either HCC or CC. This case is particular due to the advanced imagistic test used.

Key words: Mixed hepatocellular carcinoma and cholangiocarcinoma, intraductal ultrasound, immunohistochemistry.

18 A Case of Sirenomelia-Mermaid Syndrome- Diagnosed in the First Trimester.
Gina Paşca.

Introduction: C.A., a 28-year-old primigravida presented to the obstetrics department for an abdominal ultrasound examination within a prenatal screening. This pregnancy resulted from a non-consanguineous union. There was no personal or family history for congenital malformations, diabetes mellitus or teratogenic drug intake. **Case history:** A combined two- and three- dimensional sonography was performed at 12 weeks gestations which revealed a single live fetus with a single pelvic bone and with completely fusion of the lower extremities. The head, trunk and the upper extremities were normal whereas kidneys and bladder were not visualized. The crown-rump length (CRL) was 69.4 mm and the nuchal translucency (NT) measurement was 3 mm. The amniotic fluid volume was normal. Cytogenetic analysis was performed and revealed a normal male karyotype (46, XY). The parents were informed of the ultrasonography findings and they opted for the termination of the pregnancy. **Investigations:** Post mortem examination of the fetus showed a complete fusion of the lower limbs with the absence of the foot structures. Additionally, the right hand presented syndactyly, the anus was imperforated and the fetal sex could not be identified. **Treatment/Results:** The autopsy report confirmed ultrasonography findings. In addition, microscopic examination of the kidney revealed cystic dysplasia and the umbilical cord showed a single umbilical artery and an umbilical vein. This case report demonstrated a prenatal diagnosis of sirenomelia. **Discussion:** Sirenomelia is a lethal congenital anomaly characterized by completely or partially fusion of the lower extremities, giving a characteristic mermaid-like aspect of the affected fetus. The incidence is estimated at about 1:100,000 pregnancies.

Key words: Sirenomelia, Mermaid syndrome, prenatal diagnosis.

19 Epstein Barr Virus Infection and Acalculous Cholecystitis, a Rare Association in Pediatric Patients- Case Report.
Mădălina Ionela Chiriac, Anuţa Giurgi.

Introduction: Acute acalculous cholecystitis (AAC) associated with Epstein Barr virus (EBV) infection is a known entity, but the cystic duct stenosis secondary to inflammation caused by EBV is an extremely rare case. The authors presents the case of D. RG, a 10-year-old male patient who comes in the emergency room with altered general state, anorexia and abdominal pains. The clinical examination revealed his altered overall health status, abdominal meteorism, painful abdomen both at rest and on palpation. **Case history:** The patient was diagnosed by the pediatrician with EBV acute hepatitis in 2011. During that hospitalization he starts presenting fever, vomiting, severe pain of right upper quadrant abdominal. The abdominal-ecography reveals AAC with gallbladder hydrops (GH). Clinical outcome

was favorable but the maintaining of GH required performing cholangio-MRI which revealed GH and narrowing of terminal portion of the cystic duct (secondary inflammatory processes). Subsequently, the outcome was favorable nothing that during those two years he suffered two episodes of exacerbation of chronic acalculous cholecystitis (CAC) and maintaining the GH. He is admitted at emergency pediatric surgery in Nov 2012. **Investigations:** The biological investigations revealed cholestasis syndrome, hepatocytolysis syndrome, inflammatory syndrome. The abdominal-echography reveals acalculous gallbladder and gallbladder hydrops. We suspected a peritonitis syndrome. **Treatment/Results:** The treatment was surgical and consisted in cholecystectomy. The anatomopathology exam of the specimen reveals chronic inflammation of the gallbladder wall and sets the diagnosis of exacerbation of CAC. The evolution was favorable and he was discharged after 6 days of hospitalization. **Discussion:** The diagnosis are exacerbation of CAC and GH. Differential diagnosis: calculous cholecystitis, congenital of bile duct cyst or stenosis of cystic duct. Particularity is that after the EBV acute infection the child has developed a cystic duct stenosis.

Key words: Acalculous cholecystitis, Epstein-Barr Virus, infection, gallbladder, hydrops, child.

20 Penile Fracture- An Underreported Urological Complication of Coitus.
Zaharie Andreea, Ene Bogdan Mihai.

Introduction: Penile fracture is an uncommon condition that is most likely under-reported. It usually appears as a result of vigorous sexual intercourse or masturbation. Immediate surgical exploration is the treatment of choice in most cases in order to maintain good erectile function and to prevent permanent penile curvature. The literature provides a little over 1600 cases, with more than half of those from Muslim countries. **Case history:** We present the case of a healthy 26 year old patient, who during a regular sexual intercourse, accidentally thrust his erect penis against the perineum of his partner. He reports hearing a cracking sound with immediate loss of erection. He noticed an ecchymosis at the base of the penis rapidly extending and including the whole penile surface. **Investigations:** A Doppler ultrasonography of the penile shaft showed a discontinuity of the albuginea of approximately 1.5 cm in the left corpus cavernosum, with a 10 mL hematoma within Buck's fascia. The clinical examination found a peno-scrotal ecchymosis, with left lateral penile tumefaction and tenderness. **Treatment/Results:** The surgical team proceeded to penile exploration with identification of the albuginea defect and interrupted sutures were applied. Special attention was provided to the preservation of the vascular and nervous dorsal complex of the penis. **Discussion:** Prompt surgery offers the best results regarding potency, with a lower risk of infection of the hematoma. The differential diagnosis is clinical with ecchymotic lesions after injection of vasoactive substances or minor lesions without albuginea tear.

Key words: Penile Fracture, Tunica Albuginea, Corpus Cavernosum, Hematoma.

21 Surgical Approach in a Case of Squamous Penile Carcinoma.
Ene Bogdan Mihai, Zaharie Andreea.

Introduction: Although rare in developed countries, squamous penile carcinoma can represent a major problem for both the surgeon and the patient. Poor penine hygiene and phimosis are considered strong risk factors for the development of this type of cancer. Even if an early disease can be treated by conservative surgery, for more advanced primary disease total penectomy or emasculation are mandatory. Survival of patients with penile cancer is strongly related to the presence and extent of lymph node metastasis. **Case history:** We present the case of a 62 year old patient with a low standard of life and general poor hygiene who neglected his disease. From the case history, the patient has noticed the appearance of a tumoral growth that has developed for a period of 2 years before he solicited diagnosis and treatment. Over the past 2 months, the patient described symptoms consistent with micturition difficulties and su-

prapubic pain. On examination, we noticed a 6/8 cm penile tumoral growth that totally modified the penile architecture with invasion of the urethra, the base of the penis and the scrotum. A fistula was observed at the interface between penis and scrotum with urinary flow. **Investigations:** The abdominal ultrasound showed incomplete urinary retention with a post-void urinary residue of 200 mL. The biochemical panel revealed leukocytosis (12000) with neutrophilia (86%). The histopathological exam showed squamous penile carcinoma invading the urethra and the scrotal wall (T4NxMo). **Treatment/Results:** Considering the tumoral volume with the invasion of the scrotal wall and urethra, associated with the difficulty of the patient to urinate, the local pain, the best alternative was emasculation: penectomy with bilateral orchiectomy, tegument plasty to cover the defect and a perineal urethrostomy. **Discussion:** This pathology tends to affect the patient's psychology, but emasculation was mandatory considering the gravity of the case. Ddx: warty disease, erythroplasia of Queyrat, condylomata acuminata, balanitis xerotica obliterans.

Key words: Penile Carcinoma, Emasculation, Fistula.

22 Rare Case of Polycystic Kidney Disease and Colonic Diverticulosis.
Tania Elena Tudor, Rebecca Prata, Imelda Rahovan, Dan Valean.

Introduction: The aim of the study is to present a rare case of polycystic kidney disease, diagnosed after an "episode of hypertension". PS, male, 60 years old presented with abdominal pain, rectal bleeding, oligoanuria, asthenia. His physical exam reveals pink stripes at the distal part of the finger-nails, the presence of a hot, swelling, pulsating region, which upon touching a rough tremble can be felt, collateral circulation at the left shoulder, abdomen a little cambered on the flanks. **Case history:** Patient known with polycystic kidney disease since 2000, when his physician discovered an episode of hypertension (170/100), probably secondary, because he required treatment with three antihypertensive drugs. The patient has close relatives who suffer from polycystic kidney disease. In 2000 at the ultrasonography exam of the kidneys many cystic lesions were revealed. The patient was diagnosed Polycystic kidney disease with secondary hypertension and moderate renal failure. After a growth of serum creatinine, in 2008 he was diagnosed with chronic renal disease in the IV K/DOQI stage and recommended to be made an arteriovenous fistula. A year after, the patient started treatment with hemodialysis. **Investigations:** Colonoscopy revealed sigmoid diverticulosis, a sigmoid polyp 1,5cm which was removed, histology exam revealed adenoma with severe dysplasia and congested internal hemorrhoids; Abdominal ultrasound showed both kidneys about 20 cm in the long axis, their structure presented many various sized cyst formations. **Treatment/Results:** Positive diagnosis of chronic renal disease, K/DOQI Vth stage in treatment with hemodialysis, secondary hypertension, sigmoid diverticulosis, congested internal hemorrhoids. **Treatment:** liquid intake under 0.5l/24h, restriction of K, P, avoid constipation, synthetic erythropoietin, iron supplements. **Discussion:** The particularity of the case is the association between polycystic kidney disease (which is a rare disease 1:800) and diverticulosis.

Key words: Polycystic kidney disease, renal failure, diverticulosis.

23 Primary Pure Squamous Cell Carcinoma of the Duodenum.
Ana Maria Cosma.

Introduction: Primary pure squamous cell carcinoma of the duodenum is a very rare type of duodenal neoplasm, as it is more likely to appear as a metastatic tumor. We present an unusual case of primary pure squamous cell carcinoma arising in the duodenum of a 47-year-old woman, O.A. The patient presented with weight loss (5 pounds in 3 weeks), melena and pain at the right upper quadrant and right interscapular region. Physical examination revealed an anemic patient, with no palpable abdominal mass. **Case history:** A computed tomography (CT) scan performed in the past in another medical service revealed a duodenal tumor with the dimensions of 8 cm so that the patient was referred to our hospital for further investigations. The patient presented weight loss- 5 pounds in 3 weeks,

melena (Gregersen's reaction positive) and pain at the right upper quadrant and right interscapular region. She denied any relevant disease in the family history. Also, she denied the consumption of alcohol and she was a non-smoker. **Investigations:** Lab test: anemia, leukocytosis, normal level of CEA, CA, Ultrasound, Barium test: D2-duodenal stenosis. CT: D2-D3 8 cm tumor invasive in the head of the pancreas, dilated common bile duct, 5 lymph nodes 15 mm. UGI endoscopy: semi-circumferential vegetative tumor. Normal chest X ray, Papanicolaou test. **Treatment/Results:** DPC intervention was done. The patient responded well to the surgery and the postoperative recovery was uneventful. Histological examination and immunohistochemistry revealed the diagnosis of primary duodenal squamous cell carcinoma moderately differentiated, invasive in the head of the pancreas. **Discussion:** Primary squamous cell carcinomas of the duodenum are extremely rare, only 0.1 of 1.3% of all the gastrointestinal tract neoplasms (most of them being adenocarcinomas). Fewer than 10 cases have been noted in the literature.

Key words: Primary Squamous Cell Carcinoma, Duodenum, Rare, Case report.

24 A Challenging Case of Sepsis on a Therapeutic Immunosuppression Background.

Emanuela Denisa Şagău, Anda Valentina Trandafir, Enia Eleonora Trif, Oana Marina Urs.

Introduction: The purpose of this work is to present a case of sepsis occurred in a patient under antiviral therapy, known for its immunosuppressive effect. The sepsis occurred in the 8th month of type C hepatitis therapy, with a severe evolution. D.A., female, 66 years old presented with: fever, cough, severe fatigue, polypnea, retrosternal pain, anuria, basal thorax pain, dryness of nasal mucosa, xerostomia, loss of appetite, alopecia and rash. Her physical exam reveals: pallor, perspiring, warm turgor. **Case history:** The current disease had a sudden onset in with severe evening cough associated with retrosternal pain that lasted a week, preceded by a 3 week basal thorax pain and pollakiuria a few days before admission which evolved to anuria in the day of admission. At her admission into our department she presented febrile syndrome (fever, cough, fatigue, pollakiuria evolved to anuria, dryness of the nasal mucosa, xerostomia); alopecia, rash, anemic syndrome, weight loss syndrome secondary to the antiviral treatment (Pegylated Interferon $\alpha 2a$) she was under for type C viral hepatitis. The previous day the patient received antibiotics which further led to negative results of the hemo- and uroculture. **Investigations:** Multiple exams were performed in order to determine the cause of the febrile syndrome. Leukocytosis, ESR: 105mm/h, hemoglobin 9,4g/dL. Negative hemoculture, uroculture due to the antibiotics prescribed by her GP. Sputum sample: Staphylococcus aureus. Creatinine: 4mg/dL. Serum procalcitonine: $>10\text{ng/mL}$. **Treatment/Results:** The investigations led to positive diagnosis of sepsis. The therapy aimed the sepsis, renal failure. Treatment: Cefotaxime 1g, Ciprofloxacin 500mg, the antiviral therapy was paused with a favorable evolution and was later resumed after the sepsis was cured. End of treatment: negative viraemia. **Discussion:** The particularity of this case consists in the difficulty of treating the sepsis occurring in a therapeutically immunosuppressed patient and the uncertainty of the sepsis origin (renal, respiratory, other) and the numerous investigations required.

Key words: Therapeutic immunosuppression, interferon, anuria, procalcitonine, Staphylococcus aureus, sepsis.

25 Holoprosencephaly and West Syndrome- Surprising Response to Synacthen.

Florica Ioana-Cristina, Sava Ruxandra Irin, Musca Alice Andreea.

Introduction: Two female patients known with holoprosencephaly (HPS), M.M and C.E, aged 6 months and 12 months, report to our clinic with complaints about paroxysmal events described as follows: bending of limbs and neck with eyes looking up and hypertonicity of the limbs with duration between several seconds and one minute and a frequency of 3-6 episodes per day. The general examination

showed in both patients microcephaly with head circumference <-2 (M.M.) and <-3 (C.E) standard deviations. **Case history:** In the first case there was no significant case history, while in the second one the mother has microcephaly, unique upper incisive and developed painful uterine contraction during pregnancy. The neurological examination showed that both patients were psychomotor retarded with a development age of 3 months (retroduction of the head in supine position, head in Gesell 2 zone in prone position) with cervical paravertebral hypertonicity and spasticity of the limbs (mostly on adductor muscles of the thigh and on pronator muscles of the arm) and hyperactive osteotendinous reflexes. As the clinical manifestations and exam were suggestive, the diagnosis that we have established was West syndrome. **Investigations:** The EEG of both patients showed hypsarrhythmia. The head MRI of patient M.M showed semilobar holoprosencephaly and supratentorial arachnoid cyst and the MRI for patient C.E showed lobar holoprosencephaly. The diagnosis of West syndrome determined by a structural cause (HPS) was confirmed. **Treatment/Results:** We decided to initiate the treatment with Topiramate 25mg [2] but neither of them responded to it. As a second choice we started the treatment with Synacthen (ACTH), considering that the benefits are greater than the risk. The response to Synacthen was good, with no further spasms in evolution. **Discussion:** The result of the treatment with Synacthen was spectacular even though there was a high possibility of lack of response due to the fact that the spasms had a structural cause, so we strongly encourage to be taken into consideration in the future.

Key words: Holoprosencephaly, West syndrome, Synacthen, infantile spasms.

26 Therapeutic Approach of Myelomeningocele in Newborn.

Musca Alice Andreea, Rakoczy Vlad Adrian, Florica Ioana-Cristina.

Introduction: We present the case of a premature newborn, from an unmonitored pregnancy, with spina bifida and a fistulized thoracolumbar myelomeningocele. At birth the newborn presented hydrocephalus without signs of meningeal infection. The diagnosis was established after birth by clinical assessment and confirmed imaginistically. Imagistic evaluation also found skeletal, renal and cardiac malformations. **Case history:** A baby girl was born prematurely, by C-section, at 36 weeks of gestation with an Apgar score 7 at 1 minute. At birth, the newborn required resuscitation maneuvers: positive-pressure ventilation with a face mask and a bag-valve device. Her defect was covered with a sterile bandage and she was referred to our hospital for further evaluation and management. The clinical picture on admission: T 36,1 C, weight 3150 g, normal pulmonary auscultation, heart rate 142 beats/min, blood pressure 54/34 mm Hg, oxygen saturation 79% with nasal cannula (5L/min). On admission to our unit, for preventing infection, she received antibiotherapy. **Investigations:** Transfontanelar US revealed bilateral dilation of the occipital horns. Abdominal echography identified the sigmoid aspect of the kidney. Cardiac US found aortic stenosis (diameter of the aortic ring: 7mm). Chest x-ray found skeletal anomalies of the T1-T3 vertebrae and of the superior costal arches. **Treatment/Results:** The closure of the spina bifida defect was performed 72 hours after birth. After surgery, the newborn's general condition did not improve, the hydrocephalus progressed causing the outflow of cerebrospinal fluid through the preexistent fistula; therefore, an external ventricular drain was inserted. **Discussion:** We would like to emphasize the importance of actively surveilling the pregnancy as well as the prompt detection and treatment of spina bifida defects and other associated abnormalities in order to prevent serious clinical consequences.

Key words: Newborn, spina bifida, myelomeningocele, fistula, hydrocephalus, external ventricular drain.

27 Secondary Tuberculosis (TB) in Twin Pregnancy Complicated by an Intrauterine Fetal Death (IUFD) and an Intrauterine Device (IUD).

Anamaria Ciobăcă, Roxana Coroiu, Rosca Loredana.

Introduction: L.R 39 years, female presents with: chronic cough with mucopurulent sputum for about 3 months, inappetence, ema-

ciation and tension headache. On physical examination we may objectivize the following: malaise, wasting syndrome (BMI: 11.8), bilateral basal bronchial breath signs predominantly on the right, dyspnea, lower abdomen expanded by 21 weeks old pregnancy without tenderness to gentle pressure, a fever of 38.4 °C and a heart rate of 89 bpm. **Case history:** A 39-year-old, grand multipara with lower abdominal pain was admitted in the gynecology department, clinical and paraclinical investigation established a 21 weeks old twin pregnancy with one dead fetus and positive sputum smear microscopy for acid-fast bacilli. The abdominal pain receded after antispastic medication and spontaneous abortion was excluded due to intact amniotic membranes and closed cervix. The patient was transferred to a specialized center where secondary tuberculosis was diagnosed and the patient was admitted for specific therapy with consenting signature for the implications of admittance and therapy on the evolution of the remaining viable fetus. **Investigations:** Radiography: fibrocaceous pulmonary TB with bilateral extensive cavitation. Anemia, secondary immune deficiency, electrolyte imbalance, hypoglycemia. Ultrasound: Twin pregnancy with IUFD of one of the fetuses with biometry of 16w and a viable fetus with biometry of 21w and identification of the IUFD. **Treatment/Results:** DOTs: H150-R300 - Z1000 - E800 7/7 - 3 months. Re-nourishment, hydro-electrolytic re-equilibration (10%, 5% glucose sol.; ringer sol. 5.85% NaCl, 7.45% KCl), vitamin B12, folic acid, B complex vitamin supplements, general high spectrum antibiotics. **Discussion:** Twin pregnancy with an IUFD and an IUD and secondary TB is a special situation and together they make this case especially complicated. The primary concern is managing her TB while trying to minimize the drug toxicities associated with therapy.

Key words: Secondary tuberculosis, twin pregnancy, intrauterine death, intrauterine device, cachexia.

28 Joubert Syndrome and Ocular Motor Apraxia - A Fine Line to Walk. Ruxandra Sava, Cristina Florica, Ana Maria Rădulescu.

Introduction: A male patient, aged 3 years and 6 months, and a female patient, aged 4 years and 11 months, both report to our clinic with complaints of abnormal head and eye movements during object tracking, observed by the parents: the children first moved their heads in the direction of the object and the eyes followed only later. The neurological examination detected congenital ocular motor apraxia (OMA) in the horizontal plane. Both cases presented with normal cognitive development. **Case history:** In the first case, the OMA was the sole finding in the neurological examination and it was classified as Cogan type (COMA). In the second case it also revealed motor developmental delay that was mainly due to ataxia. Later in evolution, she presented with mild chronic ataxic syndrome consisting of wide-based gait and slight dysmetria. MRI findings (the „molar tooth sign”) pointed the diagnosis towards Joubert Syndrome (JS), despite normal cognitive development. Both children were stationary from a neurological standpoint. In evolution, the first patient developed nephronophthisis (8 years old), whilst the second developed hepatic fibrosis (4 years old), both requiring transplantation. **Investigations:** The MRI of the female patient showed the sign of the „molar tooth”. The MRI of the male patient was normal. A renal and a hepatic biopsy established the diagnosis of nephronophthisis and congenital hepatic fibrosis, both frequently associated with JS. **Treatment/Results:** There is no known treatment for either COMA or JS. However the occurrence of complications characteristic of JS shows the importance of adequate screening for hepatic, renal or retinal abnormalities, through: biochemistry studies, abdominal ultrasonography, funduscopy, electroretinogram. **Discussion:** The criteria for JS comprise presence of the molar tooth sign, hypotonia and intellectual disabilities. While not typical cases, both developed complications associated with JS, which shows current diagnostic criteria for JS need re-valuation.

Key words: Joubert Syndrome and related disorders, Cogan Syndrome, Ocular Motor Apraxia.

29 Cyclopia and Alobar Holoprosencephaly Associated with Trisomy 13-Patau Syndrome.

Cristina Bujoreanu, Bogdan Adrian Buhas.

Introduction: C.C., a 33-years old gravida 5, para 3, was referred to the obstetric department for a routine sonographic scanning at 22+5 weeks gestation. She denied drug, alcohol consumption or smoking. Serologic test were negative for syphilis, HIV, hepatitis B and C. Obstetric history revealed three normal vaginal deliveries and one spontaneous abortion. A combined two and three dimensional sonography and fetal magnetic resonance imaging showed anomalies of the brain, facial structures, heart and kidneys. **Case history:** The parents were informed of the ultrasonography findings and they opted for the termination of the pregnancy. A necropsy was performed. The external examination revealed a single orbit with a cyclopic eye, the absence of the nose, the presence of a proboscis and low-set ears. Skull opening showed alobar holoprosencephalia (HPE): fused cerebral hemispheres with a single primitive ventricle, absence of the corpus callosum, septum pellucidum, fused thalami, absence of the olfactory bulbs and tracts. Heart dissection disclosed hypoplasia of the left ventricle, uniform right atrium and ventricle enlargement, hypoplastic mitral and aortic valve, hypoplastic ascending aorta and aortic arch. **Investigations:** Ultrasonography showed alobar HPE and the presence of a proboscis. Fetal magnetic resonance imaging revealed a clear view of the single primitive ventricle and the presence of a dorsal cyst above the dorsocaudal area of the diencephalon. Cytogenetic analysis demonstrated a 46XX+13 karyotype. **Treatment/Results:** The autopsy report confirmed ultrasonography findings. In addition, microscopic examination of the kidney revealed cystic dysplasia and the umbilical cord showed a single umbilical artery and an umbilical vein. This case report demonstrated a prenatal diagnosis of cyclopia and alobar HPE. **Discussion:** Alobar HPE is the most extreme type of brain malformation from the spectrum of HPE and is typically associated with cyclopia. The frequency of cyclopia is estimated at 1,05:100.000. Nearly 50% of cases have chromosomal aberrations, mainly trisomy 13.

Key words: Alobar holoprosencephalia, cyclopia, Patau syndrome.

30 Lupus Reactivation or Macrophage Activation Syndrome? Lupsan Luminița Nora, Marian Angela Monica.

Introduction: Patient O.L., aged 33 years, female, was hospitalized for prolonged febrile syndrome, 10 kilograms weight loss in 3 weeks, asthenia, loss of appetite, xerostomia, dry cough, malar rash. The physical examination reveals fever, Cushingoid facies, paleness, eyelid edema, hepatosplenomegaly, lymphadenopathy in left axillary (1,5cm) and laterocervical (1cm) groups - freely mobile, nontender, rubbery consistency. **Case history:** In September 2012 the patient was diagnosed with Systemic Lupus Erythematosus (SLE) after persistent fever, widespread skin rash, skin biopsy with inflammatory cell infiltration. Followed a treatment with Azathioprine, Hidroxicloroquine and Metilprednisolon with symptoms remission. Starting from November 2012 the patient had intermittent fever for an indefinite time frame. The symptoms were absent for 2-3 months, but they reappeared in March 2013 and the patient was admitted in a local clinic. The Methylprednisolon dose was increased and she also followed a general antibiotics treatment with no response. In 10.04.2013 she was referred to the Rheumatology clinic from Cluj-Napoca. **Investigations:** The CBC revealed pancytopenia, increased CRP= 1,2mg/dl, ESR=50mm/h. There were increased levels of ASAT (94U/L), GGT=338U/L, LDH=1956U/L, hypertriglyceridemia (720mg/dl), hyperferritinemia (4150 ng/L), decreased cytotoxic activity of T CD4 NK cell, macrophage hemophagocytosis in bone marrow aspirate. **Treatment/Results:** Prompt therapy with 3g/day intravenous methylprednisolone, 3 consecutive days, followed by 2-3 mg/kg/day in four doses, associated with oral Cyclosporine A was started. This led to complete remission of the symptomatology and normalization of the laboratory tests. **Discussion:** The diagnosis was Macrophage activation syndrome (MAS). Differential diagnosis: with the flare of the rheumatic disease, sepsis, leukemia, liver dysfunction. MAS complicating SLE is an imminent danger that should be immediately diagnosed and treated.

Key words: Macrophage activation syndrome, Systemic Lupus Erythematosus, cytotoxic function of NK cells.

- 31 **Accelerated Clinical Course of a Massive Splenomegaly. Case Report on Peripheral T-Cell Lymphoma - Not Otherwise Specified.**
 Andreea Maria Ștefan, Delia Doris Muntean, Ioana Diana Șamșodan.

Introduction: We report an uncommon case of Peripheral T-cell Lymphoma-Not Otherwise Specified (PTCL-NOS), which is a rare and usually aggressive Non-Hodgkin Lymphoma. Our patient, B.I., a 60-year-old female, presented with discomfort in the left upper and lower abdominal quadrant, loss of appetite, weight loss (10kilos in 6 months), night sweats, malaise. The physical exam revealed distended abdomen with massive splenomegaly down to the iliac crest, hepatomegaly, pallor and no superficial lymphadenopathies. **Case history:** The current disease had a fast progressive evolution, symptoms having developed a month before the patient presented to the Hematology Department. She was then transferred to Internal Medicine Department to exclude hepatopathies that could lead to splenomegaly. The US documented moderate hepatomegaly but no signs of portal hypertension and revealed a massive, inhomogeneous spleen with irregular configuration. Due to the high risks that the spleen biopsy involves (hemorrhagic shock, rupture), the surgical intervention was imposed in order to establish the precise diagnosis offered by the immunohistochemical staining (IHC). Total splenectomy was performed. **Investigations:** Blood sample analysis: moderate anemia; Peripheral blood film: codocytes, acanthocytes and rare dacryocytes; Anatomopathological exam: massive spleen 30/25/14 cm, with infarct areas; disorganized spleen architecture with diffuse proliferation of the tumor cells; IHC: CD3, CD2, CD7 positive, Ki67=30%. **Treatment/Results:** Total splenectomy was performed for both therapeutic and diagnostic purpose. IHC results led to the positive diagnosis of Peripheral T-cell Lymphoma-NOS. The frontline treatment regimen was a combination chemotherapy including cyclophosphamide, doxorubicin, vincristine and prednisone (CHOP). **Discussion:** As a differential diagnosis, we considered: leukemia, lymphoma and myeloproliferative disorders. The particularity of the case is the aggressive evolution that led to mandatory surgical treatment, due to the consequences of the massive splenomegaly.

Key words: Massive splenomegaly, peripheral T-cell lymphoma, splenectomy.

- 32 **Insulin Resistant Genetic Disease- Alström Syndrome: A Case Report.**
 Atanze Nyakuge Precious.

Introduction: Patient: U.A, 27 years old; Female; Romanian.. Presents with: bilateral complete blindness; unilateral deafness on right ear; Obesity with BMI: 41.6, Increased upper body muscle mass; stiffness in the back, dyspnea and hyper pigmentation of the skin. **Case history:** The first sign: Nystagmus, noted at 4 months old. She developed progressive retinal degeneration and Infantile obesity: 16 kgs at 11 months old. At 10 years , she was blind and had sensorineural hearing impairment. Initially diagnosed at 12 years with Non-Insulin Dependent Diabetes Mellitus (NIDDM) but was recently diagnosed with Insulin dependent Diabetes Mellitus (DM). Never had ketoacidosis. She has Chronic „active” hepatitis, recurrent urinary tract infections, incontinence, scoliosis, kyphosis, acanthosis nigricans, obesity, normal intelligence, normal extremities, normal secondary sexual characteristics with no menstruation, chronic obstructive pulmonary disease and gastroesophageal reflux disease. **Investigations:** Laboratory test (Pathological findings): Increased levels of liver transaminases, hypercholesterolemia and hypertriglyceridemia. Cardiac Echography-Systolic dysfunction of the left ventricle was noted with diffuse hypokinesia. Genetic testing-Frame shift in one allele in axon 16 in the ALMS1 gene. **Treatment/Results:** Alström’s Syndrome: A rare autosomal recessive genetic disorder which affects multiple organs. The ALMS1 gene is on chromosome 2p13. In our patient, treatment includes: Recombinant growth hormone therapy; Hearing aids; Statins and Fibrates for dyslipidemia; Actos and Lantus for Diabetes Mellitus. **Discussion:** Diabetic retinopathy: Blindness in long term Diabetes Mellitus(DM). Biedl-Bardet Syndrome: Obesity, Blindness, Polydactyl. Wolfram Syndrome: DM, Diabetes Insipidus, Optic atrophy,Deafness, WFS1 gene. Alström’s Syndrome: DM, Blindness, Deafness, ALMS1 gene.

Key words: Alström Syndrome; Genetic disease; Insulin resistance; Lipid metabolism; Diabetes Mellitus.

- 33 **A Rare Case of Systemic Mastocytosis.**
 Delia Doris Muntean, Andreea Maria Ștefan, Ioana Diana Șamșodan.

Introduction: The aim of this work is to present a rare case of systemic mastocytosis (SM) which set out 20 years ago with vasculitis of unknown etiology. The evolution was aggressive, affecting multiple organs. Our patient, P.S., a 46-year-old female, presented with: pain in the right hypochondrium, postprandial bloating, dyspnoea on effort, asthenia and fatigue, diaphoresis. Her physical exam revealed: pallor, spread cutaneous eruptions, superficial lymphadenopathies, hepatomegaly and splenomegaly. **Case history:** The current disease occurred in 1993 with recurring episodes of cutaneous eruptions and anaphylactoid reactions to multiple drugs and insect stings (severe anaphylactic shock at the age of 38). At her first admission into our department (2008) she presented edematous syndrome (ascites, bilateral leg edema); bilateral laterocervical and right axillary lymphadenopathies; facial erythema and diffuse purpura. The US documented hepatosplenomegaly and portal hypertension. The diagnosis at that stage was: Liver cirrhosis Child-Pugh A, Non-Hodgkin lymphoma (NHL) of low malignancy and Small vessels vasculitis. In 2010 she was submitted at the Hematology department and in 2012 was diagnosed with SM. **Investigations:** Multiple biopsies: lymph nodes (2), skin, liver, duodenal polyp (2), bone marrow - all rising the suspicion of lymphoma. Bone marrow biopsy-immunohistochemistry (IHC) toluidine blue: dense infiltrates of mast cells; Molecular testing for c-kit D816V mutation: positive; Serum tryptase level>200 ug/L. **Treatment/Results:** The investigations led to the positive diagnosis of Indolent Systemic Mastocytosis (ISM). Therapy for ISM is primarily symptomatic. No therapy is curative, the major objective is to decrease mast cell activation. Treatment: Imatinib, Medrol, Omeprazol, Diuretics, Vitamins and Liverprotective drugs. **Discussion:** The particularity of this case is the difficulty in stating the positive diagnosis due to the ambiguous clinical manifestations and specific required investigations, the main misleading differential diagnosis being the NHL ruled out by IHC staining.

Key words: Systemic mastocytosis, tryptase, toluidine blue, bone marrow biopsy, lymphadenopathy.

- 34 **Bilateral Otogenic Cerebellar Abscesses.**
 Radulescu Florin- Mihai, Carp Ovidiu.

Introduction: The authors present a case of successive cerebellar abscesses in chronic otitis. C Otogenic brain abscess is a complications of chronic ear discharge, especially cholesteatoma is the cause ,but possible risk factors are -immune deficit, congenital defects of the petrous bones, poor nutrition. To develop this complication in children is rare but the same complication on both side is extremely rare, just a few reports exist in literature. **Case history:** The subject of this report is a young male, with a long history of bilateral otorrhea, neglected by a disorganized family. At 13 years old was treated for left suppurative otitis, meningocephalitis and cerebellar abscess, than at 23, for controlateral otitis, with cerebellar abscess. CT, MRI were essential to appreciate the extensions of lesions in the temporal bone and intracranial. The coordination between ENT-NK was essential, moment of surgery depends on type, location, evolution of abscess, general status of the patients. **Investigations:** Diagnosis requires ENT, NK, exams, lab. tests, cultures, x-Rays, CT ,MRI. Staph. aureus was discovered in the left ear and blood, P. aeruginosa in the right, but no germs in the abscesses. **Treatment/Results:** Management consists in combination of 6-7 weeks of medical treatment and surgeries - mastoidectomy and drainage of the abscess. Recovery was complete and quick, without complications, or sequelae, only deafness, reconstruction being proscribed. **Discussion:** Early management of otitis, antibiotics, vaccination, prevents chronic evolution, deafness and complications.

Key words: Otogenic cerebellar abscess, cholesteatoma, mastoidectomy, craniectomy, neurosurgery.

35 Systemic Lupus Erythematosus.
Radulescu Florin-Mihai, Ştefan Oana.

Introduction: R.H. is a twenty-four-year-old white female. On admission, the examination revealed joint stiffness and swelling especially noted in her hands and wrists bilaterally, malar rash (butterfly rash) and necrotic lesions of the digital pulp, found at the second right finger. Another finding was the Raynaud syndrome. **Case history:** The current disease started three months ago with arthritis and polyarthralgia of the small joints of the hands. An atypical presentation of systemic lupus erythematosus has also been discovered: at the age of twelve, the patient has experienced epileptiform seizures. **Investigations:** Thrombocytopenia: 72000/ mL; Monocytes: 16.3 % , ESR: 56 mm/h, PCR: 0.22, Haemoglobin: 11.6 g/dL, Hematocrit: 34.5 g/dL, Antinuclear antibodies: 1/1000. Gamma-Glutamyl Transferase: 69 U/L, Antibodies to double stranded DNA: 2052.37 U/ml. Complement system: C3c = 57 mg/Dl. **Treatment/Results:** Cyclophosphamide - 100 mg per day, Prednisone corticotherapy - 60 mg per day , Methylprednisolone pulse therapy - 1gram per three days. **Discussion:** The differential diagnosis of systemic lupus erythematosus includes the following: Progressive systemic sclerosis, Raynaud syndrome, Rheumatoid polyarthritis, Vasculitis, Sjögren syndrome.

Key words: Lupus erythematosus, case report, malar rash, necrotic lesion, epileptiform seizure.

36 Giant Ovarian Mucinous Cystadenoma Complicated with Pseudo-Meigs' Syndrome: An Autopsy Case Report.
Bogdan Adrian Buhas, Cristina Bujoreanu.

Introduction: V.C., a 36-years old female, diagnosed with an ovarian cyst 3 years earlier, presented at Emergency Care Unit. At admission the patient was temporal and spatial disorientated, with severe hemodynamic, respiratory, metabolic and hydro-electrolytic imbalance. The anamnesis of the patient was difficult. External examination showed an exceedingly distended and tense abdomen. Four hours after hospital admission, the patient succumbed with respiratory failure. **Case history:** Diagnosed with right sided ovarian cyst in 2007, the patient followed a hormonal treatment for 1 month. In 2010 she presented at the hospital with weight loss, asthenia, dyspnoea, distended abdomen, vomiting, constipation and polakiuria. Computed tomography scan of the chest and abdomen revealed a giant ovarian tumor with moderate ascites and a right sided pleural effusion with lung atelectasis. Thoracocentesis was performed with the evacuation of 1,7L serous fluid. After 8 days, a chest x-ray revealed the recurrence of the pleural effusion. The suspicion of Krukenberg tumor was raised, but oncologic examination was refused by the patient and she was discharged on her own responsibility. **Investigations:** The autopsy revealed 4,0 L of serous fluid in the abdominal cavity and a giant tumor measuring 45x30x25 cm, which appeared to arise from the right ovary. The liver was found in the thorax, lungs presented bilateral atelectasis and the right pleural cavity contained 0,8 L of serous fluid. **Treatment/Results:** Histologic examination of the tumor concluded a diagnosis of ovarian mucinous cystadenoma. The concomitant presence of the ovarian cystadenoma, massive ascites and right sided pleural effusion is a characteristic triad that favored the diagnosis of PseudoMeigs' syndrome. **Discussion:** Ovarian mucinous cystadenomas account for 15% of all ovarian tumors. Despite the impressive size in this case the tumor could have been safely removed, but the lack of the patient's concern and denial of the appropriate treatment led to her death.

Key words: Ovarian mucinous cystadenoma, pseudo-Meigs' syndrome.

37 A Rare Case of Myofibroblastic Tumor in Gallbladder.
Cireap Diana, Ciriş Ramona, Cîmpan Patricia.

Introduction: Inflammatory myofibroblastic tumour is a benign tumor, with a non-metastasizing proliferation of myofibroblasts, having a distinctive fibroinflammatory and a pseudosarcomatous appearance. Although primarily it is reported to appear in the lungs, the intra-abdominal forms are frequently encountered in the liver,

followed by stomach, bowel, spleen, mesentery, and extrahepatic bile duct. Hereinunder, we present a case of IMTof the liver, which is often mistaken for a malignant entity. **Case history:** A 65 years old female presented with complains of asthenia, fatigue, weight loss, epigastric and right hypochondrial pain. The clinical examination revealed obese patient (BMI=31 kg/m²), jaundice and hepatomegalia. **Investigations:** Biochemical markers revealed leukocytosis, anemia, cholestasis, AP=1204 U/l and increased level of gama GT. The tumor markers AFP and CA19-9 turned out negative. Imagistic examination suggested a diagnosis of gall bladder lithiasis, common bile duct lithiasis, and a tumoral formation of the gall bladder. **Treatment/Results:** Besides block resection of: liver segments IV and V, of the gall bladder and liver pedicle, lymphadenectomy was also performed. Microscopic tests revealed: fusiform cells with no cytologic atypia, no atypical mitosis, and inflammatory cells. Immunohistochemical markers α -SMA, ALK1 markers were positive. **Discussion:** With cholangiocarcinoma (imagistic appearance, gangrenous cholecystitis (pericholecystic abscess look alike). Considering: liver IMTs are rare in adults, the unusual localization and that it may simulate malignancy the resection was done radically.

Key words: Inflammatory myofibroblastic tumour, gallbladder wall tumor, laparoscopic conversion, malign aspect.

38 An Uncommon Association of FNH on Ectopic Liver. A Case Report.
Cîmpan Patricia, Ciriş Ramona, Cireap Diana.

Introduction: Ectopic liver(EL) is a rare developmental anomaly in which hepatic tissue is situated outside the liver with no hepatic connection. The gallbladder is the main site of development. Its evolution is unpredictable, therefore the uniqueness of this case due to the development of a FNH(focal nodular hyperplasia) on the EL. FNH is a hyperplastic growth of normal hepatocytes with a malformed biliary draining system in response to a pre-existent arteriovenous malformation. **Case history:** An otherwise healthy 29-year-old female presented to our surgical unit with pain in the upper right quadrant and epigastrium. Medical history was negative for oral contraceptives. **Investigations:** ULTRASONOGRAPHY: hyperechoic nodular lesion. In the left lateral decubitus position the mass showed a mobilization towards the umbilicus. CEUS: Spoke-wheel morphology of the arteries. Portal and parenchymal phase: hyperechoic lesion. Late phase: hypoechoic stellate scar in the center of the lesion. **Treatment/Results:** Laparoscopic resection of the tumor en bloc with the gallbladder. The only ligation performed was of the cystic vascular pedicle. Histopathological result: abnormal architecture, lack of portal triads in the hepatic fragment. Ductal structures forming a stellate scar. Postoperative course was uneventful. **Discussion:** Due to the fact that the patient was symptomatic, in both the case of FNH and EL, resection is indicated. The differential diagnosis was made with a hepatic adenoma, hepatic haemangioma, hepatocellular carcinoma.

Key words: Ectopic Liver, Focal Nodular Hyperplasia, Laparoscopic Approach.

39 Case Report: Listeria Monocytogenes Meningitis.
Irina Ciucă, Irina Filipescu, Roxana Mănoiu.

Introduction: B.V. 73 yo, male , rural environment. Signs&symptoms: high fever, chills, frontal headache, photophobia, dysarthria, confusion, severe asthenia, restlessness. Physical examination: General : confusion, agitation, mucosal dryness, pharyngeal congestion. Neurological: dysarthria, abolished lower limb osteo-tendionus reflexes , abolished abdominal cutaneous reflexes Meninges: Neck stiffness, positive Brudzinski and Kernig signs . BP= 115/60 mmHg, HR=102/min, O 2 Sat= 98%, RR=22-23/min. **Case history:** There was a sudden onset of symptoms 24h prior to admission presenting with severe fronto-occipital headaches, photophobia, fever and chills, dysarthria, and marked asthenia. The patient had similar symptoms 4 years before, when he was diagnosed and had surgical treatment for a frontal sinus tumor. His past medical history consisted of sinusitis episodes and a stroke. The patient was undergoing treatment for

asthma. The Ears Nose and Throat consult prior to admittance in the hospital confirmed a tumor in the left sphenoidal sinus. The patient admitted to regularly eating raw unpasteurized dairy products. **Investigations:** Bacterial type inflammatory syndrome: ESR 40 mm/h, CRP 10,3 mg/dl, plasma fibrinogen 542,9 mg/dl, blood count: Leu=21,7*10³/μl, Neu=19,15*10³/μl, Neu%=88,2%. Lumbar puncture (LP): glucose 4mg/dl, proteins 251,4mg/dl, cell count 3000/mm³, positive cultures for *Listeria monocytogenes*. **Treatment/Results:** Initial treatment covered a respiratory tract derived meningitis with Ceftriaxone and Ciprofloxacin. After having positive LP cultures the treatment was switched to Ampicillin for 40 days until the normalization of the LP. The neurological symptoms and the fever receded after 6 days. **Discussion:** The particularity of this case consists of the multiple differential diagnoses for the patient's condition (stroke, sinus tumor, pansinusitis), his negative hemocultures and also the rarity of *Listeria meningitis* in immunocompetent individuals.

Key words: *Listeria monocytogenes*. Meningitis. Sinus tumor.

40 **Hypoglycemia in an Adult Male: A Surprising Finding in Pursuit of Insulinoma.**

Cosma Daniel-Tudor, Vereșiu I.A.

Introduction: Nesidioblastosis is defined as a diffuse proliferation of primitive pancreatic islet cells budding from ductal epithelium. This condition can cause hypoglycemia in infants as a result of mutations in the sulfonylurea receptor or in the anatomically linked potassium channel. In adults, this disease occurs independently from these genetic mutations. **Case history:** A 41-year-old male operated for a duodenal ulcer(1999) was referred to our center via emergency room with suspicion of an insulinoma after an episode of loss of consciousness with a glycemia(G) of 24mg/dl. Further questioning revealed 3 similar episodes in 2012. At admission: altered general status with retrograde amnesia, dry skin and mucous membrane and deep tenderness in the epigastrium. The patient was transferred into a surgical clinic with dietetic recommendation and Phenytoin 200mg/day for insulinoma localization and surgical treatment. **Investigations:** The 72-hour fast was stopped for symptomatic hypoglycemia with high insulinemia. Endoscopic ultrasound revealed a pseudolobular aspect in the pancreas tail and body. The short octreotide test was interrupted due to hypoglycemia confirming the lack of tumor somatostatinoma receptors. **Treatment/Results:** Exploratory laparotomy was performed with intraoperative ultrasonography which exhibited two tumors in the pancreas tail and body. A subtotal spleno-pancreatectomy was performed. Microscopic view was consistent with nesidioblastosis. The patient remains euglycemic ten months post-operatively. **Discussion:** Nesidioblastosis is a rare cause of adult hypoglycemia. Pre-operative differentiation from insulinoma is difficult, but mandatory when imaging studies are negative.

Key words: Nesidioblastosis, insulinoma, hypoglycemia.

Abstracts of the 25th Colombian Scientific Congress of Medical Students, Armenia, Colombia, CECIM 2014

ORAL Presentations:

ORIGINAL RESEARCH

01 Standardization of Mining, Farming, Characterization and Stem Cell Cryopreservation Adipose Human Tissue.

Liliana Elizabeth Sussmann Estrada, Carlos Hugo Escobar Soto, Luz Dary Gutiérrez.

Scientific society: Sociedad de Investigación Científica de Estudiantes de Medicina, SICEM-FUCS, Fundación Universitaria de Ciencias de la Salud, Bogotá, Colombia.

Introduction: The potential of self-regenerative and differentiation of Mesenchymal Stem Cells (MSC), has positioned itself as an alternative cell therapy for tissue regeneration. Adipose tissue has been taken as an attractive source of MSC (AdiposeDerivedStemCells, ADSC) for clinical use; because it offers higher yields in terms of number of primary sample and quantity of extracted cells. **Methodology:** The ADSC three human adipose tissue samples were cultivated in DMEM supplemented with Fetal Bovine Serum (FBS), then digesting the tissue with Collagenase, filter the product and determine the cell viability with Trypan Blue. With conjugated antibodies to APC, FITC or PE, and their respective isotype controls, the expression of CD73, CD90, CD105, CD34, CD45, CD34 and CD45, on four pass cells was determined. The potential of adipogenic and osteogenic differentiation was assessed by staining with Alizarin red and oil red O respectively, after that cultivate the cells four passes for two weeks in differentiation media. Cells were cryopreserved at -80 ° C in a solution of 10% FBS + DMSO. **Results:** Corresponding to that reported internationally about 2 * 10⁵ cells / ml of adipose tissue were obtained. It showed the expression of CD73, 90 and 105, and the absence of expression of CD34 or CD45 by at least 95% of the cells, besides their potential of differentiation was confirmed. Finally, cell viability after being cryopreserved ranged between 65 and 85%. **Conclusion:** Extraction, cultivation, characterization and cryopreservation of human ADSC was standardized following protocols previously reported. Peak oxygen consumption (VO₂max) is one of the strongest predictors.

Keywords: Mesenchymal Stem Cell, production, protocol.

02 Prevalence of Depressive Symptomatology in Medical Students of Caldas University.

Juliana Bonilla Pabón, Yesid Molina Correa, Uriel Ropero Gutiérrez, Juan Felipe Salazar Espinosa, Duván Andrés Vélez Ríos, Oscar Mauricio Gómez Puentes.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad de Caldas, ACEMVAL. Universidad de Caldas, Manizalez, Colombia.

Introduction: Medical education is associated with stressful situations that can lead into depression. The unusually high levels of depression in medical students have some important implications that go beyond medical education. **Objective:** To determine the prevalence of depressive symptoms in medical students from first to eleventh semester from Universidad de Caldas' School of Medicine and to evaluate associated factors. **Methodology:** Descriptive, cross-sectional study. The sample was 132 medical students enrolled in 2013-2th period. They were randomly selected and applied the Depressive Beck inventory. The prevalence of depressive symptoms were classified. Also sociodemographic data were obtained, an association analysis was performed between factors as: stratum, gender, age, work activity, living away from home, among others. **Results:** A prevalence of 22,7% for depressive symptoms were found. About gender, a prevalence of 24,6% women and 20% for men were found. Also, there was a P less than 0,05 in relation with depression prevalence and the highest level of study. **Conclusion:** The

prevalence of depressive symptoms and related factors in Universidad de Caldas medical students is related with the level of study, as similar as reported in literature. It is proposed to make a further study, including the prevalence for alcoholic beverages consumption.

Keywords: Depression, medical students, epidemiological survey.

STUDY PROTOCOLS

01 Evaluation of Diabetes Concepts in Medical Students of Caldas University.

Yesid Molina Correa, Uriel Ropero Gutiérrez, Duván Andrés Vélez Ríos, Juan Felipe Salazar Espinosa, Juliana Bonilla Pabón, Juan Manuel Pérez Agudelo.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad de Caldas, ACEMVAL. Universidad de Caldas, Manizalez, Colombia.

Introduction: Diabetes Mellitus is considered a disease with a high prevalence in colombian population, this requires a solid knowledge by health personnel to carry out a proper diagnosis, treatment, control and prevention. However, there is poor literature on the evaluation about diabetes concepts on medical students. **Objective:** To quantify and to evaluate the knowledge of medical students of Caldas University in diabetes mellitus. **Methods:** This is a descriptive, cross - sectional study, the population frame is of 350 undergraduate medical students attached in the 2013-2 academic period, a stratified random sample will be taken of 60 students of both genders, a questionnaire will be applied to determine the level of knowledge about this topic. **Expected results:** It's expected to find a directly proportional relationship between the completed credits and diabetes knowledge among medical students of Caldas University, the reach of this research reside that in evaluating the knowledge, may be established the ability of the students have to teach to chronic diabetes patients the appropriated techniques of self-care.

Keywords: Diabetes mellitus, medical students, questionnaires, epidemiological survey.

02 Detection of Chlamydia Trachomatis in urine samples by PCR (Polymerase Chain Reaction).

Gerardo Andrés Libreros, Diana M. Jurado, Herney A. García, Andres Zorrilla Vaca, Fabio Samir Vargas Cely.

Scientific society: Grupo de Biotecnología e Infecciones bacterianas. Departamento de Microbiología. Asociación Científica de Estudiantes de Medicina de la Universidad del Valle, ACEMVAL, Universidad del Valle, Cali, Colombia

Introduction: *Chlamydia trachomatis* is the main bacterial agent of sexual transmission around the world that causes a wide variety of non-symptomatic infections. The microorganism is the causal agent of non-symptomatic urethritis and cervicitis mainly in sexual active young population and it is associated with both symptomatic and non-symptomatic individuals with consequences as pelvic inflammatory disease, ectopic pregnancy and sterility. The laboratory diagnostic of *C. trachomatis* is not executed as a routine in developing countries as Colombia, due to technical difficulties and high costs of this testing technology. **Objective:** The aim of this work is evaluate the infection status due to *C. trachomatis* in urine samples of 126 symptomatic and non-symptomatic men by a conventional PCR, whose technical validation was previously done in the Microbiology Department from Universidad del Valle and compare it against a commercial real time PCR test. It is expected that the study allows to know the performance and capacity of conventional PCR against real time PCR for diagnose genitals infections of *C. trachomatis* in urine

samples from symptomatic and non-symptomatic men. Providing a diagnostic test that perfectly performs and that can improve the detection disease rating. **Methodology:** It's a research work than involve diagnostic testing for paired groups where the conventional PCR is compared against the goldstandard, the real time PCR *Chlamydia Trachomatis* Cryptic Plasmid Helicase (DnaB)TM. The population sample consists of patients from the "Hospital Universitario del Valle" and Rafael Uribe Clinic that come during 2014, to Urology service and their respective accompanist that that satisfy the inclusive criteria.

Keywords: Chlamydia Trachomatis, PCR, symptomatic, non-symptomatic, infections, diagnose.

03 Hedera Helix vs Propolis as Treatment for Cough Secondary to Common Cold in the Pediatric Population.

Sandra Lorena Garcia Patiño, Aníbal Rueda Osorio, Luz Elena Sepúlveda Gallego.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad de Caldas, ACEMCAL. Universidad de Caldas, Manizalez, Colombia.

Common cold is the most frequent disease in childhood, among its symptoms we can count: nasal congestion, nasal discharge, headache, sneezing and cough. The latter one represents one of the most annoying symptoms, not only to children but also to their caregivers who tend to think that a serious condition might be the cause of coughing. In Colombia, the use of natural or "chemical-free" medications is common and widely accepted due to the popular belief that these products are harmless because they are plant-based. Two of the natural medications approved for commercialization are Hedera Helix extract (HHE) and Propolis, a compound which has been found in several studies to have a mechanism of action which can improve respiratory symptoms. This study aims to compare both medications and determine which of them is more effective in the management of cough associated with common cold, in order to allow caregivers to select the most effective natural medication for the treatment of cough in children. Children expected to be enrolled on this study are children between 1 and 10 years old who present to the ambulatory pediatrics service of a second level health-center (Hospital San Marcos, Chinchiná, Caldas), with cough associated to common cold. The study will be conducted in 2 months.

Keywords: Common cold, cough, Hedera Helix, propolis, propoleum.

04 Cellular Immunogenicity of Toxoplasma Gondii PDI protein in humans.

Wilder Carvajal Gutierrez, Juan Camilo Alvarez Ceballos, Andres Mauricio Alvarez, Gerson Andres Rojas, Laura Cortazar, Sara Lucia Gonzalez, Jorge Enrique Gomez-Marin.

Scientific society: Centro de Investigaciones Biomédicas. Asociación de Estudiantes Investigadores en Medicina de la Universidad del Quindío, ASEIMUQ. Universidad del Quindío, Armenia, Colombia.

Toxoplasma is a protozoan cosmopolitan distribution that can infect mammals and birds. The PDI (protein disulfide isomerase) is located on the surface of Toxoplasma gondii tachyzoites. This protein is an ubiquitous chaperone oxidoreductase that modulates interactions between parasite and host cells. In this project, the cellular response of human lymphocytes ex vivo will be analyzed from patients with and without previous contact with the parasite, in the presence of Toxoplasma PDI protein. The PDI affinity will be modeled by bioinformatics with HLA A02:01. The lymphoproliferative response to recombinant PDI protein of Toxoplasma by leukocytes from patients will be evaluated. Finally, the cytokine response (TH1/TH2) will be determined in supernatant of lymphocyte cultures by measuring interferon-gamma (TH1) and interleukin 4 (TH2) levels by ELISA assay. All this process will be achieved by obtaining leukocytes for analysis of subpopulations involved in lymphoproliferation by flow cytometry technique. This project will determine if Toxoplasma PDI is able to induce a lymphoproliferative response and if induce a TH1 (IFN- γ) or TH2 (IL4) response. This will determine if this protein can be part of a vaccine candidate for humans.

Keywords: Toxoplasma Gondii, protein disulfide isomerase, interleukine 4, interferon gamma, flow cytometric.

05 Prevalence of Vaginal Delivery After a Previous Cesarean Section in Hospital de Caldas S.E.S, Colombia.

Claudia Marcela Hualpa López, Yesid Molina Correa, María Camila Montoya Gonzalez, Jorge Eduardo Vélez Arango.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad de Caldas, ACEMCAL. Universidad de Caldas, Manizalez, Colombia.

Introduction: Vaginal delivery after a previous cesarean section has for many years been a controversial topic in obstetrics, the dramatic increase in the rates of cesarean section has intensified interest in this issue. Therefore it is necessary to establish the criteria used in the Obstetrics and gynecology Service of S.E.S Hospital de Caldas, Colombia when it comes to define the type of delivery that will be used in patients who have been previously subjected to cesarean section, allowing for better institutional practice guidelines that contribute to a reduction in the frequency of repeated cesarean delivery in this population. **Objective:** Determining the prevalence of vaginal delivery after a previous cesarean section and identifying the causes of repeat cesarean delivery in the Obstetrics and gynecology Service of S.E.S Hospital de Caldas. **Methods:** Descriptive and retrospective analysis on data pertaining to pregnant women who received medical attention between 01 January 2013 and 31 December 2013 in S.E.S Hospital de Caldas using data obtained from the hospital delivery records, including patients with a previous cesarean delivery, establishing the frequency of vaginal or cesarean delivery, and the indication for cesarean section when this was the selected type of delivery. **Expected results:** A high prevalence of repeat cesarean delivery in S.E.S Hospital de Caldas.

Keywords: Cesarean section, parturition, vaginal delivery after cesarean.

06 Evaluation of Diabetes Concepts in Medical Students of Caldas University.

Juliana Bonilla Pabón, Yesid Molina Correa, Juan Manuel Pérez Agudelo, Uriel Roperio Gutiérrez, Juan Felipe Salazar Espinosa, Duván Andrés Vélez Ríos.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad de Caldas, ACEMCAL. Universidad de Caldas, Manizalez, Colombia.

Introduction: Diabetes Mellitus is considered a disease with a high prevalence in colombian population, this requires a solid knowledge by health personnel to carry out a proper diagnosis, treatment, control and prevention. However, there is poor literature on the evaluation about diabetes concepts on medical students. **Objective:** To quantify and to evaluate the knowledge of medical students of Caldas University in diabetes mellitus. **Methods:** This is a descriptive, cross-sectional study, the population frame is of 350 undergraduate medical students attached in the 2013-2 academic period, a stratified random sample will be taken of 60 students of both genders, a questionnaire will be applied to determine the level of knowledge about this topic. **Expected results:** It's expected to find a directly proportional relationship between the completed credits and diabetes knowledge among medical students of Caldas University, the reach of this research reside that in evaluating the knowledge, may be established the ability of the students have to teach to chronic diabetes patients the appropriated techniques of self-care.

Keywords: Diabetes mellitus, medical students, questionnaires, epidemiological survey.

07 Relation Between the Food Habits and the Cholelithiasis.

Marisol Ayala Agudelo, Sergio Alejandro Celis Castiblanco, Álvaro Guillermo Flórez Carrero, Carlos Alfredo Tovar.

Scientific society: Asociación Científica de Estudiantes de Medicina del Tolima, ACEMTOL, Universidad del Tolima, Ibagué, Colombia.

Introduction: According to the importance to the pathology and their high rate of prevalence in Tolima department, the idea is to determine the possible connection between the food habits in patients with gallstones diagnosis and the pathology's genesis. **Methods:** It

will developed through a descriptive, analytical and transversal study, with a survey that include some food routines, the usual daily diet and frequency of consume of specific food in surgical patients between eighteen and sixty years old. The patients are in hospitalization in general surgery's area in Federico Lleras Acosta hospital (Francia and Limonar), in Ibagué-Tolima, during July to October 2014. According to the statistical analysis of quantitative and qualitative variable have been studied, it expect to identify the proportion of association and/or relation concerning to the influence of dietary habits and gallstones. In this way, it can permit guide the community to reflect in what they eat and strengthen and provide primary prevention strategies in different areas of health.

Keywords: Cholelithiasis, habits, diets, prevention.

08 Isolation of phages for Salmonella from manure of a shed in Calarca. 2014.

Leidy Alexandra Garcia, Viviana Echeverri Restrepo, Juan Manuel Jaramillo, Linderman Diaz, Alejandro Osorio, Juan Camilo Londoño, Eric Andrew Vargas, Jhon Carlos Castaño, Claudia Granobles.

Scientific society: Asociación de Estudiantes Investigadores en Medicina de la Universidad del Quindío, ASEIMUQ. Universidad del Quindío, Armenia, Colombia.

In Colombia Salmonellosis is one of the largest zoonosis and in recent years its resistance to antibiotics has been growing so has been exploring the possibility of using bacteriophages as a therapeutic alternative. This study aims to isolate the host bacteria smear to *G. gallus* in a shed Calarcá, samples from the same place where the manure or specific phages to isolate Salmonella sp will be taken. The bacteria will be grown in medium Salmonella / Shigella BBL™ and CHROMagar™ Orientation, identification is made through biochemical tests and BBL CRYSTAL Enteric™ IDENTIFICATION SYSTEMS / nonfermenter ID KIT. Manure samples or bacteriophages with the previously validated technique in the nursery and the solution obtained by this method will be taken to co-culture with the host bacteria where later the presence of plaques were determined be isolated.

Keywords: *Salmonella*, bacteriophage, *G. gallus*.

09 Characterization of Penetrating Precordial Trauma Attended in an Institution of Reference of South West of Colombia Between April 2014 and April 2015.

Andres Zorrilla Vaca, Laureano Quintero, Mauricio Rodriguez Molina, Leidy Vanessa Brand, Jorge Mario Gaspar.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad del Valle, ACEMVAL, Universidad del Valle, Cali, Colombia.

Introduction: Precordial trauma is considered as one of the commonest types of injuries in the emergency medicine. It occupies an important role among every kind of trauma, requiring a careful attention in specialized units of trauma and urgency, because of its mortality rate has been reached critical values up to 85%. **Objective:** To characterize the clinical and epidemiological profile of patients with penetrating precordial trauma treated at the "Hospital Universitario del Valle" between April 29, 2014 and April 30, 2015. **Methods:** The project will be performed as an analytical prospective observational study. To fulfill the purpose of the study, will be included all patients with penetrating precordial trauma assisted in the "Hospital Universitario del Valle", Cali, Colombia. The study has sociodemographic variables and others related with the description of the injury, the management and its outcomes. The categorical variables of the study population will be analyzed by chi square test and quantitative variables by Student's t test for bivariate analysis. There will be bivariate analysis to conclude associations through adjusted Odds Ratios using logistic regression and furthermore, will be used relative risks ratios to establish prognostic factors of mortality. **Expected results:** There will be a broad overview of epidemiological precordial trauma, where the description of the population included will allow estimating factors associated with the injury and outcomes.

Keywords: Wound, penetrating, trauma, health public.

10 Growth of Microorganisms in Residual Samples o Propofol Used in Operating Rooms of a Third Level Hospital of Cali, Colombia.

Leidy Vanessa Brand, Andrey Payán Gonzalez, Andres Zorrilla Vaca, Kevin Escandón, Tatiana León.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad del Valle, ACEMVAL, Universidad del Valle, Cali, Colombia.

Introduction: Clinical recommendations for a properly management of general anesthetics with probiotic characteristics constitute a typical concern in each hospital scenery. Sepsis associated with extrinsic contamination of propofol represent a critical sanitary problem because there have been several outbreaks since its approval by the Food and Drug Administration (FDA). **Objective:** To determine growth of microorganisms in clinical samples of residual propofol used during elective surgeries done at operating rooms of a third level hospital in Cali, Colombia between October and December 2014. **Methods:** There is planned a prospective descriptive study, in which will be analyzed microbiologically all the clinical samples of residual propofol from their respective ampules used during elective surgeries between October and December 2014. To achieve the objective is intended to describe the presence or absence of microorganisms in the samples of residual propofol through cultures in liquid medium, as well as to determine the forming colony units per milliliter (FCU/ml) by means of cultures in solid medium under aseptic techniques. Others variables included the blister batch and the time of opening. The primary variable, defined as the presence or absence of microorganisms, will be described with absolute frequencies and percentages, and the continuous variables with measures of central tendency, of dispersion and finally proved with Student's t test. **Expected results:** The study results will allow better understanding of the association between infection and propofol to highlight the importance of the care that must be taken into account when is handling high probiotics substances such as propofol.

Keywords: Propofol; infection; health public; ampules.

11 Description of the Expression Profile of miRNAs in Serum of Infants with Hypoxic Ischemic Encephalopathy at Hospital Universitario del Valle.

Ana María Cabal Herrera, Jose Vicente Forero Forero. Paola González Girón, Laura Yuriko González Teshima, Javier Torres Muñoz, Andrés Castillo, Julián Ramirez Cheyne.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad del Valle, ACEMVAL, Universidad del Valle, Cali, Colombia.

Hypoxic Ischemic Encephalopathy is a pathology that may arise secondary to perinatal asphyxia and constitutes leading cause of brain injury and long-term neurological sequelae in the neonatal period. An accurate diagnosis is essential to determine and evaluate appropriate clinical intervention. Therefore, discovering biomarkers that enables more accurate and objective diagnoses is important in order to reduce morbidity. miRNAs could be proposed as new biomarkers since deregulation of these molecules has been linked to various pathological processes in which hypoxia plays an important role. Consequently it is appropriate to study changes in the expression profile of miRNAs in cases of EHI. This will be a case control study which will compare the levels of expression of microRNAs in 30 healthy new borns (controls) and 30 neonates with Hypoxic Ischemic Encephalopathy (cases). Cases and controls will be paired up by weeks of gestation and other clinical and sociodemographic data, which could represent possible confusion variables. The size of the samples for each group was determined based on previous studies. As miRNAs are biological factors with a low variability expression profile between individuals under the same conditions, different studies support the use of small samples, less than 30 individuals, which would be enough to determine a possible association between the expression of the miRNA and the presence or absence of HIE.

Keywords: miRNAs, biomarkers, perinatal asphyxia, hypoxic Ischemic encephalopathy, expression profile, newborns.

- 12 **Evaluation of implementation for a new method of diagnosis of tuberculosis and resistance to rifampicin in *Mycobacterium tuberculosis* in the Hospital San Juan de Dios in Armenia.**
Luisa Echeverry Trujillo, Alejandra Galvis Mojica, Andrea Henao Sabogal, Jorge Enrique Gomez Marin.
Scientific society: Centro de Investigaciones Biomédicas. Asociación de Estudiantes Investigadores en Medicina de la Universidad del Quindío, ASEIMUQ. Universidad del Quindío, Armenia, Colombia.

Introduction: Armenia have the second most important incidence of tuberculosis (TB) in Colombia. In 2013, there were 86 patients diagnosed with TB at the Hospital Universitario San Juan de Dios (HUSJD) of Armenia. GENEXPERT MTB/RIF is a new rapid test (2 hours) that is based in molecular biology molecular and detect a mutacion of resistance to rifampicine. It is necessary to evaluate the cost benefit of the implementation of this technology for diagnosis of TB for the HUSJD. **Methods:** The aim is to compare the current method of diagnosis (culture plus bacilloscopy) with the new methodology based on GENEXPERT, in patients with suspected diagnosis of pulmonary and extrapulmonary TB at the HUSJD during 2015. We will include hospitalized patients with clinical picture suggestive of tuberculosis where culture and bacilloscopy is indicated (we estimate 350-400 patients during one year). We will perform GENEXPERT assay in all patients by following the manufacturer instructions. We will calculate the sensitivity and specificity with their respective confidence intervals at 95% by having culture as gold standard. The Kappa index for concordancy between both test will be determined. The cost benefit analysis of new technology will be calculated by taking in to account the the costs of performance of traditional test versus the costs of the new technology by including the indirect costs (DALYS). **Expected results:** We expect to determine the cost- benefit of the introduction of the new technology at the HUSJD in Armenia.

Keywords: Tuberculosis, GENEXPERT, cost-benefit, new technology.

- 13 **Identification of Drug Use and Risk of Abortions and Birth Defects in Pregnant Women, Pereira, 2014.**
Julio César Arce Fajardo, Daniel Ricardo Arias Jaramillo, Ana María Baena Gaviria, Andrés Gaviria Mendoza, César Augusto Mejía Vélez, Jorge Enrique Machado Alba.
Scientific society: Grupo de Investigación en Farmacoe epidemiología y Farmacovigilancia. Asociación Científica de Estudiantes de Medicina de Risaralda, ACEMVIS, Universidad Tecnológica de Pereira, Pereira, Colombia.

Introduction: It is estimated that 90% of women consume any medication during pregnancy which may include drugs cataloged in D and X categories; up to 5% of birth defects are attributable to drug use. Regionally, there are no studies to determine the frequency of consumption of drugs in pregnant women, the number of abortions or neonates with malformations and abnormalities attributable to the use of drugs and other substances. **Objective:** To determine the frequency and the relationship between the use of drugs and other substances during pregnancy and the outcome at the end of delivery or abortion in women affiliated to the Health Care System in Pereira. **Methods:** Case-control analytic study, where cases are products of abortion and newborns presenting any adverse perinatal outcome and / or congenital malformations and controls will be children born without any deformity or functional impairment. Population: pregnant patients attended for abortion, women at postpartum and infants from a first and third level hospitals in Pereira, for a period of a year. Variables: Demographic, obstetric, drug use in pregnancy, dose, route of administration, indications and usage time; looking for its association with adverse perinatal outcomes and / or birth defects. Multivariate analysis will be done using SPSS 22.0. **Expected results:** This project will determine the incidence of malformations and other abnormalities in newborns and abortions associated to the use of medications during pregnancy to provide tools to reinforce the care of pregnant women in the country.

Keywords: Birth Defects, Drugs, Medicinal Plants, Pregnancy, Pregnancy Outcome, Psychoactive Drugs.

- 14 **Structural Modeling and Bioinformatic Analysis of a similar sequence with nitric oxide synthase in *Toxoplasma gondii*.**
Alcibiades Aranda Hoyos, Jhoan Fitzgerald Ortiz, Mateo Murillo León, Mishelle Sofia Salas Rivadeneira, Jorge Enrique Gómez Marín, Diego Mauricio Moncada.
Scientific society: Centro de Investigaciones Biomédicas. Asociación de Estudiantes Investigadores en Medicina de la Universidad del Quindío, ASEIMUQ. Universidad del Quindío, Armenia, Colombia.

Nitric oxide is a cell second messenger that participates in a number of cellular mechanisms. This molecule is synthesized from L- arginine aminoacid by the enzyme nitric oxide synthase (NOS). A NOS like protein was found in *Toxoplasma gondii* and mostly expressed by oocysts stages. No information exist about its structure nor functionality in the parasite, because is fundamentally divergent to other NOS previously characterized enzymes, therefore is a mystery its functionality for the parasite. This made this enzyme attractive to perform structural modeling and to go in a deeper analysis about its function and as a therapeutic target against this protozoan. For that reason we will perform a structural modeling by using the sequence of NOS like protein of Toxoplasma at the ToxoDB site (accession number: TGGT1_209585). We will perform a prediction of the secondary structure in the Profunc server and of the tertiary structure in ITASSER. Conserved domains will be predicted by Prosite, Smart and NCBI-CD. Model visualization will be performed by CHIMERA 1.8 and model quality will be evaluated by PROCHECK.

Keywords: Toxoplasma, bioinformatic, structural modeling, nitric oxide synthase.

- 15 **Epidemiological Profile of Smoking in Students of a Health School, Cali - Colombia, 2014.**
Carolina Zorrilla Vaca, Diana Marcela Zambrano Chamorro.
Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad del Valle, ACEMVVAL, Universidad del Valle, Cali, Colombia.

Introduction: The effects of illicit and legal drugs, such as snuff, is a major global concern, which are considered a public health problem that grows gradually affecting mainly adolescents, being the most susceptible population. Despite laws recently put in place, including the law 1335 of 2009, there are still observing the phenomenon of smoking around the institution, so this proposal arises from the need to determine the epidemiological characteristics associated with the acquisition of smoking among students of the Faculty of Health Sciences (Medicine Program, Psychology and Nursing) based on the political environment FREE SMOKE PLACES since 2009 within the University of Libre - Cali. **Objective:** Analytical observational descriptive study with cross-temporality. Universe of 1592 taking the students of the Faculty of Health Sciences in determining a sample of 310 using a stratified sampling per semesters with subsequent simple randomization in proportion to those for the selection of each of the individuals involved in the study. **Expected results:** Knowledge of the epidemiology regarding smoking habits around the students of the faculty of health sciences at The University of Libre - Cali and the impact generated by the recently implementation of policies that promotes Smoke-free places.

Keywords: Snuff, Students, Public Health, University.

- 16 **Prevalence of Recurrent Urinary Tract Infection and Bacterial Sensitivity to Antibiotics in Patients in the San Juan de Dios Hospital in Armenia.**
Andrea Romero Noreña, Sebastián Peláez García, Oscar Alberto Colonia Gutierrez, Diana Marcela Curtidor.
Scientific society: Asociación de Estudiantes Investigadores en Medicina de la Universidad del Quindío, ASEIMUQ. Universidad del Quindío, Armenia, Colombia.

Urinary tract infection (UTI) is a common disease in the general population and one of the 10 leading causes of morbidity in family practice, representing a disease of high costs for the health system, affecting the quality of life of patients. Some risk factors associated with

recurrence of infection are: gender, age, background gynecobstetric, neurogenic bladder, inadequate previous treatment, poor hygiene, among others. In the San Juan de Dios Hospital in Armenia prevalence of recurrent UTI and the bacteria involved sensitivity to antibiotics used in the institution is unknown. A retrospective transversal descriptive study will be performed in the population diagnosed with urinary tract infections in the years 2011 and 2012 in the San Juan de Dios Hospital in Armenia by review of medical records recorded and filed. A sample of 128 people from a total population of 1420 is assumed. It is expected through this work, determine the prevalence of recurrent UTI and identify the pathogens involved in the same order to know and make recommendations to the attention of this pathology in the user population and the general hospital population.

Keywords: Urinary tract infection, bacterial resistance, recurrent UTI.

17 Prevalence of Burnout Syndrome in Anesthesiologist of Risaralda and Associated Risk Factors, 2013-2014.

Juan Sebastián Hurtado Zapata, Laura Milena Cardona Marín, Luis Daniel Reyes Espinosa, Nata Valencia Sanchez, Leidy Yuliana Arias Salazar, Juliana Jimenez Alarcón, Daniel Eduardo Nieto Henao, Diego Fernando Salazar Ocampo.

Scientific society: ¹. Asociación Científica de Estudiantes de Medicina de Risaralda, ACEMRIS, Universidad Tecnológica de Pereira, Pereira, Colombia. ². Asociación de Estudiantes de Medicina de La Autónoma de Pereira, ASCE-MAP, Fundación Universitaria Autónoma de las Américas, Pereira, Colombia.

Introduction: The anesthesiologist is one of health professionals who require more job responsibility. The constant workload, time demands and the situations to which they are subjected by the conditions of many of the patients they treat, can cause changes in their behavior in and out of practice environment. Long hours may cause low performance and allow the possibility of error increased in the execution of their office, also increasing their stress levels. These conceptual equivalents are grouped into a pathological reference called "Burnout Syndrome" which is defined by emotional exhaustion, depersonalization and loss of a sense of personal growth. This syndrome appears due to overwork, leading to a difficult management of stress even becoming in a somatic and emotional condition. **Methods:** That's why this study pretends to know the factors associated with this condition through a study of cross section in which determined the prevalence of burnout alterations, derived from anesthesiologists members of Anesthesiology Society of Risaralda, through the realization of a poll with a format auto filled, where will apply MASLACH scale as evaluator instrument by electronic format. **Conclusion:** Currently there is limited information related to this syndrome at the national level, the studies have been done in Colombia only contemplate the presence of Burnout in internal doctors, data found in a research done by the Hospital Univesitario del Valle and the Universidad del Norte in Barranquilla. That's why the initiative born to determine the presence and characterize risk factors of Burnout syndrome among anesthesiologists of Risaralda during 2013-2014.

Keywords: Burnout, stress, behavior, depersonalization, prevalence.

18 Risk of Acute Exacerbations by Infection in a Cohort with Structural Pulmonary Damage from Bucaramanga.

Monica P. Romero Marín, Kelly J. Sánchez Robayo, Yeison Santamaría Alza, Tania Mendoza Herrera, Fabio Bolívar Grimaldos. *Scientific society:* Asociación Científica de Estudiantes de Medicina de la Universidad Industrial de Santander, ACEMUIS, Universidad Industrial de Santander, Bucaramanga, Colombia. Medicina Dirigida a la Intervención del Tabaquismo, MEDITA. Universidad Industrial de Santander, Bucaramanga, Colombia.

Introduction: Structural pulmonary diseases are part of the respiratory disorders that affect our population, which include Chronic Obstructive Pulmonary Disease (COPD), bronchiectasis and the fibrocavitary aftermath of necrotizing inflammatory diseases. Other studies previously made in other latitudes have found a high prevalence of these diseases associated with a high incidence of acute exacerbations of these diseases by infection. However, in our country there are no studies that characterize these exacerbations. **Objective:** To

determine the risk of acute exacerbation by infection in patients with structural pulmonary disease recruited at the University Hospital of Santander. **Methods:** An observational retrospective cohort study in patients older than 18 years with structural pulmonary disease treated between May 2011 to February 2014 captured by non-probability sampling of concurrent cases, to complete a sample size of 260 patients for a power of 80 % and an alpha of 0.05, checking existing physical and electronic medical records. The outcome will be acute exacerbation by infection and a descriptive, bivariate and multivariate analysis will be performed to determine the association of the outcome with sociodemographic, clinical and laboratory variables collected by an instrument built for this purpose. The variables will be consolidated in a database to be analyzed with Stata software.

Keywords: Bronchiectasis, chronic obstructive pulmonary disease, caverns, exacerbation.

CASE REPORTS

01 Importance of Folic Acid Preventing Neural Tube Defects. A Case Report.

Beatriz Carolina Lobo Munive, Jesse Mauricio López Vega, Gabriel Felipe Niño Suarez, Luis Eduardo Reyes Lara, Luis Eduardo Reyes Lara.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad Pedagógica y Tecnológica de Colombia, ACEMED-UPTC. Universidad Pedagógica y Tecnológica de Colombia, Boyacá, Colombia.

Introduction: Introduction: Neural tube defects (NTDs) are congenital malformations of the brain and spinal cord that occur in the first weeks of gestation, within which, anencephaly is one of the most prevalent and severe pathologies. **Clinical case description:** A 28-year-old female patient G2Pv1 with pregnancy of 28 weeks and 6 days by first trimester ultrasound. After a third trimester routine ultrasound, the possible absence of fetal calvarial was described. She was referred to the San Rafael hospital of Tunja for the management by maternal-fetal medicine, where the anencephaly ultrasonographic diagnosis, a kind of neural tube defect, was performed. **Discussion:** During the embryonic development, the risk of NTDs is higher in the first fourth week of gestation. It has been shown that the probability of suffering a DTN can be reduced by supplementation with folic acid to pregnant. However, deficiency of this nutrient is important in the genesis of this type of malformation. In this way, it is necessary to emphasize the correct medical advice and regular attendance at prenatal care; in which it is possible to identify, diagnose, establish an appropriate management and provide counseling to parents on measures to be taken in current and future pregnancies.

Keywords: Anencephaly, Folic acid, neural tube defect.

02 Laron Syndrome: First Case Report in Colombia.

Francisco Javier Bonilla-Escobar, Audrey Mary Matallana, Rhoades, María Juliana Martínez Latorre.

Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad del Valle, ACEMVAL, Universidad del Valle, Cali, Colombia.

Introduction: The resistance or primary insensitivity to Growth Hormone call Laron syndrome is a disease in an autosomal recessive trait that has been attributed to mutations or deletions in the gene for the receptor thereof, which have been described about 56 defects molecular, which leads to the inability to generate Insulin Growth Factortype I (IGF-I). The phenotype of the disease include dwarfism acromicria, organomicria, obesity and hypercholesterolemia progressive. It has been classified as a rare disease and reports south of Ecuador but none in Colombia. **Methodology:** The following study is a case report of a Laron syndrome originating in Colombia, aiming to report a disease not previously described in the country and identify the clinical characteristics of the disease and its management. **Clinical case description:** Female patient aged 13, referred to Cali to the Pediatric Endocrinology consultation from Pasto because despite Somatotropin provided management it was zero the growth rate, non-development of sexual characteristics

and somatomedin C levels consistently low. Mother without similar previous history. Physical examination revealed small round face, small nose, hypoplastic chin, short neck and acromicria. Bone age of 9 years. IGF-I was given and 2 years later she grew 8 cm in height. **Conclusion:** A case of resistance somatotropin and poor growth and poor development of sexual characteristics can be considered as a Laron syndrome, no family history of the disease is reported. A genetic study is required.

Keywords: Laron Syndrome; Genetic Diseases, Inborn; Mutation; Case Reports; Rare Diseases.

03 Uterus Didelphys: Pregnancy and Abortion. Case Report.

Juliana Bonilla Pabón, Yesid Molina Correa, Jorge E. Vélez Arango.
Scientific society: Asociación Científica de Estudiantes de Medicina de la Universidad de Caldas, ACEMCAL. Universidad de Caldas, Manizales, Colombia.

Introduction: Uterus didelphys is a rare congenital anomaly of the reproductive tract, this pathology is often confused and sometimes frequently undiagnosed. The uterus didelphys usually leads pregnancies to term with timely interventions such as the use of a certain age inhibitors uterus pregnancy and although it is likely the cerclage spontaneous abortion or premature birth. **Clinical case description:** Female patient with 26 years old with who consults for heavy vaginal bleeding, clinical examination evidenced output products of conception, the vaginal touch, two separate cervix with dilated anterior neck with remains in the cavity, the posterior neck not, a tracking ultrasound is performed that evidence on left right uterine cavity echogenic material, heterogeneous on cavity, right uterine cavity a single live fetus with active movements. **Discussion:** It is presented a rare condition where evidenced the presence of two uterine bodies with two cervix, each with various diseases, an abortion and a pregnancy in progress, the presentation of the case is important, and provides relevant data when the timely diagnosis and appropriate management.

Keywords: Uterus didelphys, pregnancy, abortion.

04 Acute Neoplastic Abdomen In A HIV/AIDS Patient: A Case Report.

Indira Angulo-Díaz, Diana Oliveros-Jiménez, Rina Barrios-Barretoc, Sandra Herrera- Lomónaco.
Scientific society: Asociación Científica Acta Médica de Cartagena, ACAMC. Facultad de Medicina, Universidad de Cartagena, Cartagena, Colombia.

Introduction: HIV/AIDS patients can suffer from acute abdomen of infectious, neoplastic, or idiopathic type. Epithelial, mesenchymal, hematolymphoid neoplasms can be increased in infected individuals. The non-Hodgkin lymphomas are present in 3% of the HIV patients, being 60 times more frequent than in the general population. This constitutes a defining criterion of AIDS. The most frequent histological types are the Diffuse large B-Cell lymphoma, and Burkitt's lymphoma. Extranodal locations predominate in the central nervous system, and the gastrointestinal tract. **Clinical case description:** Male, aged 23, diagnosed with HIV three years ago, with no antiretroviral therapy; consults due to 2-day symptoms, such as: diarrhea, abdominal pain in the right iliac fossa, emesis, and clinical signs of peritoneal irritation; diagnosis of acute appendicitis is provided, which derives in an exploratory laparotomy; intestinal perforation is found in the ileocecal region. A debridement on the perforated area, an enterorrhaphy, and an appendectomy are performed. The histopathological diagnosis reports Diffuse large B-Cell non-Hodgkin lymphoma (DLBCL). **Discussion:** The DLBCL is the most frequently reported lymphoma associated to HIV/AIDS. This case presents an unusual appearance as acute abdomen simulating appendicular symptoms in a patient with no antiretroviral therapy, which contributes to the development of this entity. The prognosis is grim, proportional to the CD4 lymphocyte count. Some patients benefit from Highly Active Antiretroviral Therapy (HAART), evolving satisfactorily.

Keywords: Acute abdomen, neoplasm, non-Hodgkin lymphoma, HIV/AIDS.

Abstracts of the 6th International Student Medical Congress in Košice, Slovak Republic, ISMCK 2014

ORAL Presentations

BASIC SCIENCE

01 Winner: Investigation of the Effects of a Non-Psychotropic Phytocannabinoid on the Biology of Human Sebaceous Gland-Derived Cells.

Authors: Palma Timea Szabo, Eszter Fazekas.

Mentors: Attila Olah, Tamas Biro.

Affiliation: University of Debrecen, Department of Physiology.

Introduction: We have recently shown that the endogenous cannabinoid system plays an important role in the regulation of the lipid production of human sebaceous glands. Moreover, we have also demonstrated that the well-known non-psychotropic phytocannabinoid (-)-cannabidiol (CBD) exert complex anti-acne effects on human sebocytes (combined lipostatic, anti-proliferative and anti-inflammatory actions). **Objective:** Investigation of the putative anti-acne effects of another non-psychotropic phytocannabinoid (due to the protection of the intellectual property it is now marked as "phCB"). **Methods:** Experiments were carried out on the human sebaceous gland-derived, immortalized SZ95 cell line. Viability and cell death were investigated by MTT assay and DiI C1(5)-SYTOX Green staining, respectively; proliferation was followed by CyQUANT-assay. Lipid synthesis was monitored by Nile Red staining, whereas for the investigation of the Ca²⁺-homeostasis a Fluo-4 AM-based fluorescent method was applied. **Results:** First, we investigated the effects of phCB on the viability of SZ95 sebocytes. We found that up to 10 µM, neither viability, nor the ratio of the apoptotic/necrotic cells was influenced by the phytocannabinoid. Next, we dissected its actions on the lipogenesis. We found that – applied at the above non-cytotoxic concentrations – it was able to decrease the basal sebaceous lipid synthesis, and, of great importance, it normalized the "pro-acne" agents-induced, "acne-mimicking" elevated lipid production. Moreover, it also suppressed the proliferation of the cells, which, together with the previous universal lipostatic effect, would be very much desired in the clinical treatment of acne vulgaris. Finally, we found that (similar to CBD) it evoked elevation of the [Ca²⁺]_i, arguing for that the two phytocannabinoids might activate similar, Ca²⁺-dependent "anti-acne pathways". **Conclusion:** It has been confirmed that, similar to CBD, other phytocannabinoids might also exert remarkable anti-acne effects on sebocytes, thus their further thorough investigation holds out the promise of the establishment of efficient novel therapeutic tools for the clinical management of acne vulgaris. **Acknowledgement:** Department of Physiology, University of Debrecen. This research was realized in the frames of TAMOP 4.2.4. A/2-11-1-2012-0001 "National Excellence Program – Elaborating and operating an inland student and researcher personal support system convergence program". The project was subsidized by the European Union and co-financed by the European Social Fund.

Keywords: Acne, cannabinoid, sebocyte, dermatology.

02 Winner: Relationship Between Structural Properties of Sulfonamides and Their Affinity to Human Serum Albumin: Molecular Docking Study.

Authors: Anna Strączyńska.

Mentors: Jolanta Sochacka.

Affiliation: Medical University of Silesia, Department of General and Inorganic Chemistry, The School of Pharmacy and Division of Laboratory Medicine in Sosnowiec

Introduction: It is known that structural data and physicochemical properties of the compounds influence the activity drugs and their affinity to proteins and various biomolecules. Molecular docking is

one of the in silico methods which may be used for the prediction of interaction between drugs and proteins and to understand the mechanism of this interaction. **Objective:** In this work, the impact of chemical structure of the sulfonamides on the binding to human serum albumin (HSA) was studied. The selected sulfonamides (1–10) presented a common basic structure, but they differed in the number, kind and location of substitutions. **Methods:** The X-ray structure of HSA (PDB ID: 1a06) was downloaded from the Protein Data Bank (PDB). The two dimensional and three dimensional structures of sulfonamides were obtained and energetically minimized by the use of ChemOffice2010 program. The values of structure descriptors, which characterized the selected sulfonamides were: partition coefficient (log P), molecular weight (MW), polar surface area (2D), molecular surface area (3D), number of hydrogen donors (Hb-D) and hydrogen acceptors (Hb-A), and were calculated with Marvin Sketch v. 5.9, ChemAxon Ltd. 2012 software. Molecular docking procedure was performed using the Molegro Virtual Docker (MVD) v. 6.0. 2011 software. The relationships between HSA-ligand binding energy values and numerical values of descriptors were analyzed using Molegro Data Modeler (MDM) v 2.6 software. **Results:** The regression analysis was applied to correlate the values of binding energy with structure descriptors (logP, MW, 2D, 3D, Hb-A and Hb-D) for the compounds. Statistically significant correlation (r) was obtained between binding energy values and MW (r=0.944), 3D (r=0.897) and logP (r=0.71). **Conclusion:** The obtained results suggested that MW, 3D and logP values were important structure descriptors for studying sulfonamide-HSA interaction. **Acknowledgement:** I wish to express my gratitude and appreciation to Jolanta Sochacka, Ph.D., whose help, suggestions and encouragement have enabled me to do this project.

Keywords: human serum albumin, sulfonamides, molecular docking.

03 Winner: Features of the 5-Fluorouracil Activation and Distribution in Blood Lymphocytes.

Authors: Genbach I. O., Hienbach I. O.

Mentors: Khomutov E. V.

Affiliation: Donetsk National Medical University n.a. M. Gorky, 1st Medical Faculty

Introduction: Anticancer drug 5-fluorouracil (5-FU) has been used in the treatment of cancer for over 50 years. Its endolymphatic injection is so effective but it hasn't clear scientific basis. **Objective:** The aim of the work includes studying of cellular transport and activation of the drug 5-FU in the blood lymphocytes in vitro and in vivo during the chemotherapy of patients with gastric adenocarcinoma. **Methods:** We used the blood of healthy volunteers (N = 5) and patients (N=11) who received the 5-FU chemotherapy. Lymphocytes were separated on Ficoll-Urografin gradient. In experiments in vitro we added 5-FU and thymidine into lymphocytes suspension. Concentrations of metabolites were determined by HPLC. **Results:** Upon the adding of 5-FU to the lymphocyte suspension in the plasma we found the drug concentration in the cells. It was 4-time higher than in plasma already at 1 minute of incubation. In plasma recorded the accumulation of the active form of the drug - 5-FUD. Nevertheless the pick level of 5-FUD was higher in the variant of experiment where potential source of ribose - thymidine was added. But activation of 5-FU occurs more rapidly in the lysate of cells. Studying blood of patients show that upon endolymphatic chemotherapy the peak level of 5-FU in lymphocytes was in 100 times higher than the plasma level on the 1st hour of the treatment (990 mM). The intra-arterial therapy demonstrated the same pattern of distribution with the peak level on the 2nd hour (576 mM). **Conclusion:** The active accumulation of 5-FU in lymphocytes in vitro and in vivo was found. However, activation of 5-FU is highly dependent on the source of ribose-1-phosphate, in

this case - thymidine. Activation of 5-FU isn't limited by its content in the cell and the method of adding. But it is limited by content in cell of thymidine. **Acknowledgement:** I wish to express my gratitude to my supervisor, assistant professor of Biochemistry Department of Donetsk State Medical University, PhD in Chemistry Eugene Khomutov who was abundantly helpful and offered invaluable assistance, support and guidance. Special thanks also to the administrate of Donetsk Regional Anti-Cancer Center for the opportunity to work with the material of patients.

Keywords: 5-fluoruracil, lymphocytes, endolymphatic therapy.

04 Macro- and Micro-CT analysis of Porcine Liver Microvascular Corrosion Casts.

Authors: M. Skala, T. Gregor, Z. Tonar, R. Palek, D. Glanc, A. Kraličkova, M. Kraličkova.

Mentors: V. Liška, L. Eberlova, H. Mirka.

Affiliation: Charles University, Faculty of Medicine in Pilsen, Department of Surgery.

Introduction: Present possibilities of classical CT-imaging of vascularity in the liver are limited by diameter 2 mm. There is no way for next studium of microvasculature by this methods. Corrosion casting became very efficient for describing the morphology and anatomical distribution of blood microvessels. When we use resin with eligible attributes, we are able to fill capillaries with diameter lesser than 10 μm (sinusoids). Micro-CT offers quantifiable three dimensional data on the vascular bed [1,2] and provides transition between histology and macroscopic imaging. **Objective:** The aim was construction of corrosion cast of vascularity in the liver, which would enable describing of sinusoids and the branches of portal vein passage to hepatic veins. **Methods:** First step of corrosion cast construction was offtake of the whole liver without blood and thrombs. It was followed by application of saline solution with heparine to hepatic veins. Then we filled liver vessels by resin through portal vein. We tested eligibility of resins Mercor and Biodur. The next task was removing of liver parenchyma in kalium hydroxide. Generally it was prepared 5 casts (3 Mercor, 2 Biodur). Micro-CT and Macro-CT were used to evaluation of casts' quality. **Results:** At first, there was evaluation of casts' quality, which was better when we used Biodur. This resin has sufficient radiological opacity, minimum shrinkage and fragility. Micro-CT scans were able to quantify and to do three-dimensional reconstruction to the level of sinusoids. **Conclusion:** Detailed knowledge of the complex liver vascular anatomy helps to perfusion measurement, which is essential to improve current liver resection procedures. **Acknowledgement:** This study was supported by grant IGA MZ CR NR 13326 and This research was supported by the Charles University Research Fund (project number P36).

Keywords: Corrosion casts, liver, micro-CT, 3D reconstruction.

05 Influencing of Regeneration of Remaining Liver Parenchyma Injured by Toxic Steatofibrosis by Monoclonal Antibody Against Transforming Growth Factor Beta-1 – Experiment on Pigs.

Authors: R. Palek, M. Skala, J. Rosendorf.

Mentors: V. Liška, V. Třeška

Affiliation: Charles University, Medical faculty in Pilsen, Department of Surgery.

Introduction: CASH – chemotherapy associated steato-hepatitis is serious disease that usually affects alcoholics and oncological patients treated by chemotherapy. The consequence is decrease of regenerative potential of liver parenchyma which is often a limitation for surgical treatment of liver malignancies. Transforming growth factor β -1 (TGF β -1) is the key growth factor participating in inhibition of hepatocytes proliferation and simultaneously it seems to be a target of biological treatment of hepatocellular carcinoma. **Objective:** Verification of effect of monoclonal antibody against TGF β -1 (MAB TGF β -1) on postoperative regenerative ability of liver injured by CASH. **Methods:** The experiment was performed on 20 pigs. The CASH was induced by peroral ingestion of 5% alcohol and intraperitoneal application of CCl₄. The period of induction took 10 weeks. Functional changes were defined using plasma levels of ammonia, aspartylaminotransferase,

alaninaminotransferase, bilirubin and gamaglutamyltransferase. Changes of quality of parenchyma were observed by ultrasonography and histopathological examination. Then the resection of left hepatic lobes was performed. 10 pigs from experimental group received MAB TGF β -1 intravenously one day after liver resection. In controlled group 10 pigs received saline instead of MAB TGF β -1. Regeneration of liver was observed during 14 postoperative days using ultrasonography and biochemical examinations. Liver samples were examined histopathologically after sacrifice of animals. **Results:** Histopathological examination confirmed development of CASH within the inductive period. Statistical analysis did not show any significant differences in regenerative capacity of liver parenchyma between both groups in postoperative period. No statistically significant differences of biochemical parameters between both groups were proved. **Conclusion:** We established model of toxic injury of liver – CASH. We didn't prove effect of MAB TGF β -1 on liver regeneration in terrain of toxic injury although on the basis of our elderly study we supposed it. On contrary we proved that MAB TGF β -1 is promising biological treatment of hepatocellular carcinoma did not induce any significant differences in liver regeneration. **Acknowledgement:** This publication was supported by grants IGA MZ CR 12025 and 13326, by the project CZ.1.05/2.1.00/03.0076 from European Regional Development Fund and by the Charles University Research Fund (project number P36).

Keywords: Transforming growth factor β -1, chemotherapy associated steatohepatitis, biological treatment.

06 The Study of Metabolites in Mouse Liver After Supplementa-tion with Selol 5%.

Authors: Monika Dujka, Anna Flis, Lidia Śliwka, Zofia Suchocka, Piotr Suchocki.

Mentors: Piotr Suchocki

Affiliation: Medical University of Warsaw, Department of Bioanalysis and Drug Analysis.

Introduction: Selol is a compound of selenitriglycerides obtained from sunflower oil and it contains selenium at the +4 oxidation level. Selol is 30 times less toxic than sodium selenate (IV) used in treatment. The results of our previously conducted studies show strong anti-cancer activity of Selol in cancer cells lines: human prostate cancer (LNCaP, PC-3), colon cancer carcinoma (Caco-2), human cervical cancer (HeLa), human breast cancer (4T1, MCF-7), human leukemia cells (HL-60/DOX/VINC, HL-60). Selol represents a promising option for cancer therapy as a variety of cellular activities, including apoptosis in cancer cell lines, are regulated and modulated by redox state of the environment. **Objective:** The aim of our studies was to identify the metabolites of selenitriglycerides in mouse liver during the 24 hours after Selol 5% oral administration. **Methods:** Our research was performed on the liver obtained from healthy male Swiss mice. Selol was administered orally to mice in the dose 17 mg/kg of body weight. Then, after appropriate time, the mice were anaesthetized with halothane and after isolation the particular liver were stored on petri dish in -80 °C. The metabolites of selenitriglycerides were isolated. Afterwards they were separated to fractions using HPLC system. The mass spectra were plotted using mass spectrometry techniques. Finally, fragmentation was performed to confirm the previously identified structure. The synthesis of the Selol reference was performed using 1,2-linoeoyl-3-palmitic triglyceride as a standard. The electrospray technique (+p ESI) was used for registration of spectrum and fragmentation of synthesizing molecules. **Results:** We had identified selenitriglycerides, selenidiglycerides, selenitemonoglycerides, methylselenols, and the products of β - and ω -oxidation. Basing on the results from standard we also observed naturally occurring fatty acids, triglycerides, diglycerides, monoglycerides and free fatty acids. **Conclusion:** Determination of metabolites' structures in mouse liver is a very important step in the understanding of the metabolism of selenitriglycerides. **Acknowledgement:** The study was supported by the Polish Ministry of Science and Higher Education based on contract 3606/B/Po1/2010/39 as part of research project N N405 360639 and by student mini-grant No. FW27/NM2/13.

Keywords: Selol, metabolites of selenitriglycerides, mass spectrometry, liver metabolites.

07 The Influence of Genetic Variation of the ALDH3A1 Gene on the Risk of Keratoconus.

Authors: Paulina Siek, Joanna Giebułtowicz, Mariusz Berdyński, Piotr Krawczyk.

Mentors: Piotr Wroczyński, Jerzy Szaflik, Cezary Żekanowski.

Affiliation: Medical University of Warsaw, Bioanalysis and Drug Analysis.

Introduction: Keratoconus (KC) is a bilateral, noninflammatory, non-vascular, and progressive corneal ectasia. The cornea develops an aberrant conical shape due to thinning of the corneal stroma, with subsequent irregular astigmatism and myopia leading to vision impairment. The molecular pathogenesis of KC is poorly understood. Few data published during the last decade suggest that accumulation of reactive oxygen species (ROS) and different reactive aldehydes formed during ROS-induced lipid peroxidation may play a role in the pathogenesis of the disease. One of the enzymes playing a critical and multifunctional role against UV-induced oxidative stress in the cornea and representing up to 50 % of the corneal water-soluble proteins in mammalian species is ALDH3A1 (aldehyde dehydrogenase 3A1). The latest research revealed that lower ALDH3A1 enzymatic activity was found in keratoconus epithelial extracts compared with normal cells. **Objective:** The aim of our studies was to describe the influence of mutations in ALDH3A1 region on keratoconus prevalence. **Methods:** DNA was extracted from EDTA-blood samples collected from patients with diagnosed keratoconus (n=30) using standard techniques. Genetic study included sequencing of promoter regions, 10 exons and intronic sequences flanking each exon of the ALDH3A1 gene was performed using fluorescent sequencing method. **Results:** Genotyping of the ALDH3A1 gene revealed no mutations in the analyzed region. However, we described 10 already known single nucleotide polymorphisms (SNPs): 6 coding SNPs, 3 SNPs in introns and 1 SNP in 3'UTR. SNPs rs1042183, rs3826508, rs2072330 were in linkage disequilibrium ($D' = 0,916-1$, $r^2 = 0,727-0,93$) and were organized in haplotype block. The results were compared with those of the European population (phase 1 of the 1000 Genomes Projects). Three promising SNPs with possible link with the risk of keratoconus were selected for further study. **Conclusion:** Keratoconus are rather not associated with mutation in ALDH3A1 region. However, the influence of the SNPs on the risk of the disease should be examined. **Acknowledgement:** The authors would like to acknowledge Department of Bioanalysis and Drug Analysis, Medical University of Warsaw and Department of Ophthalmology, Medical University of Warsaw, SPKSO Ophthalmic Hospital for the financial support.

Keywords: keratoconus, cornea, aldehyde dehydrogenase 3A1, polymorphisms.

08 Betatrophin – Fuel for Pancreatic Cells.

Authors: Kamila Bąk.

Mentors: Roża Czabak-Garbacz

Affiliation: Medical University of Lublin, The first department of medicine and stomatology.

Introduction: Diabetes belongs to the group of metabolic diseases, which have their origin in intensified loss of pancreatic β -cells producing insulin. Chronic hyperglycaemia results in serious complications, particularly the cardiologic, nephrologic and neurologic ones. Therefore the fight against dangerous to health and even life consequences of diabetes still to be a big challenge for modern medicine, and scientists are still looking for new treatment methods of this disease. **Objective:** The aim of this paper is to present the newly discovered hormone – betatrophin, which acts as stimulator of β cell proliferation. **Methods:** It was analysed available literature. **Results:** Betatrophin was detected in mice. It was produced in response to blockage of specific liver receptors by S961 (an insulin receptor antagonist peptide that triggered artificial hyperglycaemia and insulin resistance). Betatrophin was synthesised in liver and white adipose tissue of mice but its action was limited to the pancreas, where it caused β -cell proliferation followed then by an increase of insulin concentration in plasma. The injection of artificial betatrophin to the mice resulted in a 17-fold higher pancreatic β -cell proliferation combined with enlargement of islet size, increase of insulin secretion and improvement in

glucose tolerance. The presence of betatrophin was also confirmed in human serum and liver with the use of RIA, EIA and Western blotting. **Conclusion:** The discovery of betatrophin can give new possibilities to treat diabetes, especially in patients with residual pancreas function. Betatrophin may cause β -cells regeneration and allow reducing the dosage of insulin. Application of this hormone along with immunosuppressants can also prevent the development of the diabetes I. **Acknowledgement:** I would like to express my sincere gratitude to dr n med. Roża Czabak-Garbacz, who helped me with this paper.

Keywords: Betatrophin, diabetes, β -cells regeneration.

09 The Evaluating Method of the Physiological State of Peripheral Blood Neutrophils In Vitro.

Authors: Mykhailo Medvediev.

Mentors: Iryna Medvedieva.

Affiliation: Bogomolets National Medical University, Pediatric.

Introduction: The main function of neutrophils is phagocytosis, which implementation depends on the physiological state of the population of neutrophilic granulocytes, as well as environmental factors, in which cells are operating. To elucidate the physiological state of the system is the most informative way to "load" environmental factor deviations from the physiological norm. The development of sensitive methods for detecting signs of early diagnosis of pathologies that are caused by changes in the cells functional activity determines the importance of the research. **Objective:** To compare parameters of phagocytosis of neutrophils to assess the physiological state. **Methods:** Neutrophils of peripheral blood by patients with hematological disorders (leukopenia) have been studied. The modification method of absorbency of neutrophils latex particle was used. **Results:** Parameters studied phagocytosis neutrophils at different incubation temperatures on the physiological norm (37 °C). The analysis of the parameters of the phagocytic activity of neutrophils (PhAN) showed differences between the groups. When the temperature changes from the physiological norm were observed in the control group parameter deviations to 14 % in patients with leukopenia to 22 %. The detailed analysis has shown that PhAN depends on incubation times and temperatures. In our opinion, this fact is due to the change of competitive mechanisms is associated with changes in the state of intracellular, membrane and extracellular structures in the relations of temperature-sensitive enzyme structures, and protein-lipid conformational energy plan. **Conclusion:** The study the behavior of the PhAN's parameters in the incubation temperature deviation from the physiological norm allows to obtain more detailed information about the cells physiological state. Less stable state of neutrophils was shown in patients with leukopenia. The modified method can be used to evaluate the body's physiological conditions at any level of the organization. **Acknowledgement:** I am deeply indebted to scientific supervisor for advice, help and her criticism.

Keywords: Physiological condition, neutrophils, phagocytosis, environmental factors, stability of the system.

10 Hypercholesterolaemia Influences the Dynamic Assembly of CRAC Channels.

Authors: Adam Vass.

Mentors: Ferenc Papp, Gyorgy Panyi.

Affiliation: University of Debrecen, Department of Biophysics and Cell Biology.

Introduction: In the development of the calcium signal, which is essential to the activation of the immune cells, CRAC (Calcium release-activated calcium) channels play an important role. CRAC channels assemble dynamically from its two subunits, STIM1 and Orai1, after store depletion. The STIM1 subunit is localized in the endoplasmic membrane and the Orai1 subunit is localized in the cell membrane (CM). **Objective:** The elevated serum cholesterol level (SCL) has an effect on the CM fluidity which could have a major influence on the assembly kinetic of CRAC channels. Our goal was to investigate this effect. **Methods:** Calcium imaging was performed with PTI Delta Scan fluorimeter system, using Fura-2-AM fluorescent dye, at room temperature. Store depletion was achieved with Thapsigargin solution. The

measurements were implemented in human peripheral T cells which came from two different patient populations. The control group had a physiological SCHL (<5.2mM) while the hypercholesterolaemic (HC) group had about twice as much SCHL as the control group. **Results:** We measured the following calcium signal parameter: peak amplitude, ascendant and descendent kinetic, time to peak interval, basal fluorescent signal. We found a significant difference between the control group and the HC group in the descendent kinetic while the other parameters were not significantly different. However, there was a major heterogeneity in the HC group. This could be explained by the fact that the phase transition temperature of the CM is at room temperature, so at this temperature the CM fluidity has high sensitivity to the cholesterol level. **Conclusion:** According to our results, the elevated SCHL could modify the dynamic assembly of the CRAC channels, which could have also an influence to the immune response. **Acknowledgement:** This research was supported by the European Union and the State of Hungary, co-financed by the European Social Fund in the framework of TAMOP 4.2.4. A/2-11-1-2012-0001 "National Excellence Program".

Keywords: CRAC channel, calcium imaging, cholesterol, T-cell.

11 Apoptosis of Cardiomyocytes After Consumption of Energy Drinks in Rats.

Authors: Miroslaw Slawinski, Pawel Halczuk, Ruby Maini.

Mentors: Barbara Jodlowska-Jedrych, Ewelina Wawryk-Gawda.

Affiliation: Medical University of Lublin, Chair and Department of Histology and Embryology with Experimental Cytology Unit.

Introduction: "Energy drinks" are beverages that contain caffeine, taurine, vitamins, herbal supplements, and sugar or sweeteners and are marketed to improve energy, stamina, weight loss, athletic performance, and concentration. Still, there are very few papers describing the impact of energy drinks on the body, including the apoptosis of different tissues. One of organs that may be affected is the heart. **Objective:** The aim of the study was to determine what apoptotic or necrotic changes are present in the cardiomyocytes after consumption of energy drinks. **Methods:** The male Wistar rats of an average weight 155,4g were studied. They were divided into two groups: experimental and control group - 5 rats in each group. The experimental group received only energy drinks for a period of 8 weeks. Control group was supplied only with water. Food was unlimited during experiment. After a period of 8 weeks the rats were decapitated. The hearts were extracted for histological tests. Material was analyzed using Leica optical microscope at 100x and 40x magnification after H&E stain. Immunohistochemical reactions were performed on heart sections of the control and the experimental groups of animals using primary antibody - caspase-1 (marker of necrosis) and 3 (marker of apoptosis). Assessment of the intensity of the reactions was performed using a Leica microscope with a digital camera and LAS EZ software 2.0.0. **Results:** Analysis of the results allowed to observe the positive immunohistochemical reactions in cardiomyocytes. The expression of caspase-1 and 3 varied in the hearts of different groups. The expression of caspase 3 observed in cardiomyocytes was much more intense in test group animals compared to control group animals. The expression of caspase-1 was at the same, low level, in all groups. **Conclusion:** Our results would suggest that extensive use of energy drinks induce apoptosis in cardiomyocytes.

Keywords: Apoptosis, caspases, cardiomyocytes, energy, drinks.

12 Histological Changes in Renal Corpuscles Following Extensive Energy Drinks Administration in Rats.

Authors: Pawel Halczuk, Miroslaw Slawinski, Ruby Maini.

Mentors: Barbara Jodlowska-Jedrych, Ewelina Wawryk-Gawda

Affiliation: Medical University of Lublin, Chair and Department of Histology and Embryology with Experimental Cytology Unit.

Introduction: Energy drinks are very trending beverages nowadays. Lots of people are associating them with success and use

them widely to increase their performance in studying and work. However, each ingested substance can have potentially negative effect on human body. Energy drinks' ingredients pass through whole digestive system and then get to the blood to be processed in the liver and finally excreted through kidneys. In this study, we wanted to investigate the final step of its way in human body and its effects. **Objective:** The aim of the study was to determine what histological changes are present in renal corpuscles after extensive consumption of energy drinks. **Methods:** The experiment was carried out on 10 male Wistar rats divided into two: 1. Control group which was supplied only with water for a period of 8 weeks. 2. Test group which was given unlimited amount energy drinks for a period of 8 weeks. At the end of experiment, rats were decapitated and Masson's trichrome staining was performed on the kidneys sections of the animals. Assessment of the results was performed using a Leica microscope with a digital camera, LAS EZ 2.0.0 and Statistica 10.0 software. **Results:** Analysis of the results allowed to observe significant widening of urinary space and thickening of parietal layer of Bowman's capsule in test group in comparison to control group. **Conclusion:** It would suggest that extensive consumption of energy drinks affect the histological image of the renal corpuscles and possibly impairs their function. Similar image is also observed in diabetic nephropathy in humans.

Keywords: Kidney, bowman, capsule, space, connective, tissue, kidney, energy, drinks.

13 Neuropathology in the Brain of the Aging Dogs with Cognitive Deficits.

Authors: Kandrač Ondrej, Mađari Aladar, Farbakova Jana, Smolek Tomáš.

Mentors: Aladar Mađari.

Affiliation: University of Veterinary Medicine and Pharmacy in Košice, Small Animal Clinic.

Introduction: Canine cognitive dysfunction (CCD) is also called "Doggy Alzheimer" because it's progressive nature and neuropathological abnormalities resembles Alzheimer's disease in human population. **Objective:** The aim of our study was to identify key molecular changes in the brains of old dogs suffering from CCD. We focus on two major hallmarks of human Alzheimer's disease - senile plaques composed of amyloid beta and neurofibrillary tangles consist of disease. **Methods:** The cognitive state of aged dog was assessed according to the protocol proposed by Aladar Mađari. Amyloid plaques were detected by monoclonal antibody 4G8 recognizing amyloid beta. Neurofibrillary tangles were visualized using a polyclonal antibody recognizing phosphorylated forms of tau protein. Microglia were stained with an antibody against the calcium binding protein Iba1 and astrocytes were visualized with the antibody recognizing the glial fibrillary protein. Western blotting was performed with pan tau antibody DC25. **Results:** In this study we selected old dogs (over 8 years old, n=134), regardless of breed or sex. Almost 20% of tested dogs displayed signs of CCD. We found that brain of aged dogs did not display characteristic features of Alzheimer's disease. Not all brains were affected by senile plaques. Moreover, we did not observe any correlation between senile plaques and cognition. Proteomic and immunohistochemical revealed that brains of aged dogs are not affected by neurofibrillary pathology. On the other hand we found that the presence of reactive microglia - brain immune cells correlate with cognitive decline in aged dogs. **Conclusion:** Our results clearly showed that canine cognitive dysfunction has completely different neuropathological landscape when compared with human Alzheimer's disease. We proposed that cognitive decline in aged dogs is caused by senescence of brain immunity. **Acknowledgement:** This work was supported by the grant APVV-0206-11.

Keywords: Animal model, ageing dog, neuropathology, senile dementia.

PUBLIC HEALTH

- 14 **Winner: Waterpipe Passive Smokers' Exposure to Nicotine.**
Authors: Aleksandra Bartoń.
Mentors: Wioleta Zielińska-Danch.
Affiliation: Medical University of Silesia Poland, Student Research Group at the Department of General and Inorganic Chemistry.

Introduction: Above 1,5 billion people are exposed to tobacco smoke every year. Since tobacco smoking prohibition was introduced in many countries, alarming trend of smoking alternative tobacco products is observed. One of aforementioned tobacco products is waterpipe, which is nowadays very popular among youth. It seems to be reasonable to distinguish passive and active smokers' exposure to waterpipe smoke. Such smoke is probably as harmful as cigarette smoke. **Objective:** The aim of this study was estimation of waterpipe passive smokers' exposure to nicotine. **Methods:** 41 volunteers were classified as non-cigarette smokers group. They also declared tobacco abstinence since 30 days. 5 passive smokers from the non-cigarette smokers group were taking part in several research sessions (60 min exposure) alternately. Urine samples were collected in session day and the day after. Nicotine, cotinine and trans 3'-hydroxycotinine concentration was estimated in collected urine samples using gas chromatography method with TSD detector. **Results:** No statistically significant differences of analyzed biomarkers concentration was observed in samples acquired before and after 1 hour waterpipe passive smoke exposure session. Results were compared with active waterpipe smokers' urine samples. In this case statistically significant differences were observed for cotinine (76.7-12.8 ng/mL vs. 329.1-62.5 ng/mL) and trans 3'-hydroxycotinine (271.2-92.7 ng/mL vs. 907.0-144.0 ng/mL). No statistically significant differences were found in case of nicotine. **Conclusion:** Obtained results indicate no nicotine exposure during waterpipe smoking on passive smokers. No statistically significant differences in nicotine and other metabolites concentration levels in urine samples were observed. Multiplicity of factors influencing passive exposure indicates need for further analysis e.g. concerning building ventilation and number of active smokers. **Acknowledgement:** I would like to express my gratitude and appreciation to Wioleta Zielińska-Danch, Ph.D whose help, suggestions and encouragement enabled me to make this project.

Keywords: Waterpipe, adolescents, passive smokers, nicotine.

- 15 **Winner: Workload and Job Satisfaction of Primary Care Doctors in Poland.**
Authors: Anna Krztoń-Krolewiecka.
Mentors: Adam Windak.
Affiliation: Jagiellonian University Medical College, Department of Family Medicine.

Introduction: Despite the significance of family physicians' role in health care system general practice has been experiencing difficulties with medical staff recruitment in recent years. Workload and job satisfaction are important factors for medical students in their specialty choice. **Objective:** The study aimed to assess the self-perceived workload of primary care doctors in Poland and to determine the level of their job satisfaction. **Methods:** The study is a part of the "Quality and Costs of Primary Care in Europe" QUALICOPC project, which aims to comprehensively evaluate primary care systems in 35 countries against criteria of quality, equity and costs. In Poland a randomly selected sample of 220 primary care doctors was asked to fill out an anonymous international questionnaire translated and adapted to the Polish cultural settings. **Results:** The mean workweek of primary care physicians is 38 hours (SD=8). General practitioners have on average 35 (SD=12) face to face patient contacts on a normal working day. A regular patient consultation length ranges from 5 to 35 minutes (mean=13min, SD=5). 92 % of primary care doctors think that their work is overloaded with unnecessary administrative burden. 64 % of respondents complain about too much stress in their current job. 50 % feel that some parts of their work do not really make sense. 51 % agree that in their work there is a good balance between effort and reward. **Conclusion:** The average working time of Polish primary care doctors does not exceed the limit regulated

by law. The patient consultation length meets the Western European standards. Complaints about administrative burdens, stress and lack of work sense indicate low work satisfaction of general practitioners. Taking the shortage of primary care physicians in Poland into account, these results have to be considered as a cause for concern.

Keywords: Workload, job satisfaction, primary care, general practitioners.

- 16 **Winner: Psychological Job Demands, Control, and Support: A relation to Cardiovascular Morbidity.**
Authors: El Zeneini, M., Abdelsalam, A., Shaker M.
Mentors: Yasser Abdel Razek.
Affiliation: Ain Shams University, Medicine.

Introduction: Work strain has previously been suggested as a risk factor for cardiovascular disease, being one of the causes of psychological stress on an individual. **Objective:** This study is intended to independently evaluate the association between different aspects of job strain; including psychological job demands, job control, and job security and support, with the risk of cardiovascular morbidity. **Methods:** In a case-control study, three assessment scales were used to assess psychological job demands, job control, and job security and support, among 84 male inpatients of a hospital in Egypt sharing the same demographic characteristics. Current evidence and past history of cardiovascular morbidity, divided into coronary heart disease and other cardiovascular events, in each of the participants over the past 10 years was recorded. **Results:** After adjusting for other demographic co-variants as age, coronary heart disease was found to be associated with a combination of high psychological job demands, low job control, and low job security and support. The association was stronger with low job security and support alone than with each of high job demands or low job control. In an additional model to adjust for known coronary risk factors as smoking status, the association was found to be still present but of lower significance. No significant association was found between job strain and other cardiovascular events. **Conclusion:** High job strain, in particularly low job security and support, seems to contribute to a higher risk of cardiovascular morbidity. This suggests that more efforts must be made on adjusting the workplace setting in the prevention of cardiovascular disease, with particular emphasis on improving job security and support. **Acknowledgement:** Department of Cardiology, Faculty of Medicine, Ain Shams University, Cairo, Egypt.

Keywords: Stress, Work, Cardiovascular disease.

- 17 **The role of Health Belief Model and Demographic Variables in Tooth Brushing Among 9-10 Years Old Students.**
Authors: Parisa Kasmaei, Farkhondeh Amin Shokravi, Alireza Hidarania, Ebrahim Hajizadeh, Zahra Atkrar-Roushan.
Mentors: Farkhondeh Amin Shokravi.
Affiliation: Health School of Guilan University of Medical Sciences, Health Education.

Introduction: Promoting oral health which is a basis for well-being, is one of the recommended policies of WHO in schools. The practice of dentistry has its roots clearly grounded in theory and this approach could employ the Health Belief Model, but there are controversies in predictive power of its constructs. **Objective:** The aim of this study was determining the role of Health Belief Model, its constructs and demographic variables in brushing among 9-10 years old students. **Methods:** This was a cross-sectional study applied on female students of grade four in Rasht, Iran in 2012. Applying statistical estimation the sample size was 265 by using systematic sampling method in 22 schools and in each school using simple randomized sampling. The data collection tool was questionnaire and the statistical analytical methods were Chi-square, Mann-Whitney U test and Logistic regression. **Results:** In students 17.4 % brushing at least twice a day. There was statistically significant differences between those who were brushing at least twice a day (desirable behavior) and the other group on three constructs of the model: perceived severity, perceived barriers and perceived self-efficacy according to the Mann-Whitney U test, and mother educational level by Chi-square test ($p=0.0001$). logistic regression analysis showed perceived severity (OR=0.49,95% CI=0.27-0.90,

P=0.020), perceived barriers (OR=1.88,95 % CI=1.14-3.11, P=0.014), and mother educational level (OR=5.61,95 % CI=1.30-24.32, P=0.021) were the significant predicting factors for desirable behavior. **Conclusion:** The findings suggest that only nearly one sixth of the students reported that they had desirable behavior. Perceived severity, perceived barriers and mother's educational level are powerful predicting factors in adapting tooth brushing at least twice a day. Therefore the educational intervention programs for this age group should focus on overcoming perceived severity and perceived barriers among young adolescents and their mothers. Promoting the educational level of mothers is recommended as well. **Acknowledgement:** This is a section of a PhD thesis of the first author at Department of Health Education and Promotion, Faculty of Medicine, Tarbiat Modares University. Authors thankfully acknowledge financial support from the university that enabled the project to be completed. As well we appreciatively acknowledge students, their parents and authorities.

Keywords: Oral Hygiene Beliefs, perceived severity, perceived barriers, brushing behavior, demographic variables.

18 Rational Nutrition and Physical Activity Among Foreign Students of Medicine.

Authors: B. Dorzak, W. Likus, D. Milka, A. Zagorski, G. Bajor.
Mentors: Grzegorz Bajor.

Affiliation: Medical University of Silesia, Department of Human Anatomy Medical University of Silesia.

Introduction: Obesity is one of the major problem of the 21st century. Appropriate dietary habits and increasing the amount of exercise in daily life are the best way to reduce a risk of obesity and other diseases. **Objective:** The aim of the study was to assess the awareness of healthy lifestyle among foreign students attending medical school. **Methods:** The study was conducted on a group of 100 foreign students of medicine at the age of 20 - 30 years from different cultural backgrounds who have come to study at the Medical University of Silesia in Katowice. In the study was used a questionnaire where respondents were asked about a balanced diet, a subjective assessment of their own health, the type of physical activity undertaken, awareness of the consequences of the lack of activity and the reason for their inaction. **Results:** Among the respondents up to 50 % said they eat rather "healthy", but as much as 10 % can not assess their diet. Much more women said that they eat 'more healthy' (p>0.0001). More than 25 % of students never eat breakfast and the same amount of them have a snack between meals. Important problem is eating at fast food restaurants and consumption of highly processed ready meals. Up to 50 % of students do not take any physical activity. Nearly 70 % of students are aware of the need for regular physical activity and less than 10 % believe that the lack of physical activity and a healthy diet have no bad effect on their health. **Conclusion:** Studies have found that young people who attended medical school, although in theory having greater awareness of importance of taking regular physical activity and healthy eating, do not pursue their knowledge into practice in daily life. **Acknowledgement:** Department of Human Anatomy Medical University of Silesia.

Keywords: Foreign students, rational nutrition, eating habits, physical activity, medicine, medical school.

19 The Research of HIV/AIDS Current State in Ukraine and Philippines (A Comparative Study).

Authors: E. V. Kostyuchenko, J. E. Zafra.

Mentors: V. G. Wojciechowski.

Affiliation: O. O. Bohomolets National Medical University, Medical faculty #1.

Introduction: One of the biggest problems nowadays is preventing the spread of HIV/AIDS. For the past 3 decades HIV/AIDS has become a global pandemic. Despite the many scientific advancements in the 21st century, the prevalence of HIV/AIDS is increasing at an alarming rate. **Objective:** The comparison of morbidity and mortality current state in Ukraine and Philippines. The search of good methods of fighting against this disorder. **Methods:** Analysis and review of statistical data

and contemporary literature. **Results:** Ukraine's HIV/AIDS infection rate is considered to be one of the worst in Europe. Mostly this alarming rate is believed to be caused by a low awareness and careless attitude of young people to this problem. As for Philippines, currently, the prevalence of HIV/AIDS there is low, compared to other countries. However, there has been an alarming increase on the infection rate for the past few years, and it is believe that these numbers will continue to rise in the future. We have compared the statistical data of HIV/AIDS in Ukraine and Philippines in the period 2005-2012 and there are the marginal data. In 2005 in Ukraine there were 13,770 new cases of HIV-infection and 4,222 new cases of AIDS; in 2012 - 20,743 new cases of HIV-infection (in 2011 there were 21,177) and 10,073 new cases of AIDS. In 2005 in Philippines, a total of 2,200 HIV/AIDS cases have been reported, and 3,338 in 2012. In 2005 Ukraine had 2,185 new cases of deaths due to AIDS and 3,872 in 2012. In Philippines, 263 of the AIDS cases have resulted to death in 2005 and 177 in 2012. **Conclusion:** We have researched a current state of HIV/AIDS in Ukraine and Philippines. We have found out that there is a high level of morbidity and mortality of such patients with a low tendency of improving the situation. **Acknowledgement:** We are grateful to the organizers of this conference and to our professors for the possibility to take part in this great event.

Keywords: HIV-infection, AIDS, morbidity, mortality, Ukraine, Philippines.

20 Medical Students Attitudes Towards Body Donation.

Authors: Grzegorz Bajor, Wirginia Likus, Karol Kostro, Aleksander Zagorski, Daniela Milka, Andrzej Łoś, Piotr Kłakus.

Mentors: Grzegorz Bajor.

Affiliation: Medical University of Silesia in Katowice, Department of Human Anatomy, Medical University of Silesia, Katowice, Poland.

Introduction: Anatomy is one of the key areas in the education of medical students. To know the exact structure of the human body, in addition to the theoretical textbook knowledge, it is necessary to study the anatomy with the use of the human body, which is the perfect anatomical atlas. Human cadavers that serve for teaching purposes come from the Conscious Body Donation Program that has been run since 2003 by the Department of Anatomy. Within the Programme a person may donate their body after death for the purpose of teaching students from various medical courses. **Objective:** The aim of our study was to investigate the opinions of the Faculty of Medicine students from the Medical University of Silesia in Katowice on the Conscious Body Donation Program and the transfer of their body after death for teaching purposes. **Methods:** Anonymous surveys was carried out among students from all six years of studies. The survey included questions about the knowledge of the Conscious Body Donation Program and about the willingness to donate one's body for the purpose of science. **Results:** Analysis of the results allowed us to evaluate how the decision to donate one's body varied in dependence on the year of studies. It also allowed us to get to know the major motives that were standing behind the students decisions to donate or not, their body to the Program. **Conclusion:** Analysis of the results shows increasing awareness of the Conscious Body Donation Program. The awareness strongly varies of the year of the studies.

Keywords: Conscious Body Donation Program, anatomy, students.

21 The Awareness of the Correctness of Blood Pressure Measurement Among Patients Diagnosed with Hypertension - A Pilot Study.

Authors: Dorota Łucja Jarczewska Anna Suska Agnieszka Gryman Konrad Janik.

Mentors: Adam Windak.

Affiliation: Jagiellonian University, Family Medicine.

Introduction: The measurement of arterial blood pressure (ABP) is one of the most common procedures performed in clinical practice, whose results have long-term implications for medical treatment. Foreign research highlight the problem of the lack of knowledge and appropriate skills concerning blood pressure measurement among patients diagnosed with hypertension. The following research is supposed to help to verify whether the results obtained so far could be

referenced to the Polish population. Here we present the results of pilot study, the first phase of the proper study. **Objective:** The main objective of this research is to evaluate the correctness of the course and technique of ABP measurement, performed daily at home by patients diagnosed with hypertension. **Methods:** The pilot study consisted of database of 38 patients (65,8% of females, 92,1 % of patients were elder then 50 years and 73,7% had a history of hypertension longer than 5 years). After filling-in a questionnaire about personal data, a video showing the selfperformed measurement of ABP by recruited participants had been recorded and control measurement of ABP was taken. Analysis of the data was performed by two independent observers. **Results:** 29 patients (76,3 %) used invalidated devices and 84,2 % did not calibrate them. 68,4 % do not measure their ABP at home regularly. Only 5 patients (13,2 %) made no errors in measuring protocol. The most common error was incorrect position of the limb. The mean differences between control measurement and patient's measurement of ABP were for SBP: 8,32 (13,75) and for DBP: 9,24 (8,68). **Conclusion:** 1. The vast majority of participants use invalidated and uncalibrated devices. 2. Most patients measure their BP incorrectly and make mistakes at various stages of the measurement procedure. 3. Both systolic and diastolic pressure values of self-measurements are on average higher than the properly performed control. This may falsify actual health status of the patients.

Keywords: Hypertension, self-measurement, blood pressure, ABP, sphygmomanometer, accuracy, awareness.

22 Are Parents a Good Source of Knowledge About the Posture Defect?

Authors: Joanna Blicharz, Kamila Bąk, Magdalena Matera.

Mentors: Roża Czabak-Garbacz.

Affiliation: Medical University of Lublin, Human Physiology.

Introduction: Nowadays posture defect, is a great social problem and is very common among schoolchildren. **Objective:** The aim of this paper is to verify knowledge about them and their prevention among young people and parents. **Methods:** Reserach carried out included a survey among a selected group of 285 schoolchildren and 223 parents. **Results:** Approximately two thirds of respondents didn't know about the influence of sight or hearing defect. What is more, every third person didn't know that maintaining proper weight also have influence on keeping proper posture. Respondents also had problems with pointing out the correct footprint which is alarming because feet, as a main supporting element can bring on defects of other elements. **Conclusion:** Even though both groups have significant knowledge about preventive measures of posture defects, family environment cannot always provide proper and reliable level of education in this range of topic. Therefore, it's very important to put emphasise on education in schools. **Acknowledgement:** It is our duty to record our thankfulness to Dr. Roża Czabak-Garbacz from whom we had been inspiring and helping in undertaking this work.

Keywords: Posture defect, education, prevention.

23 More Students in Cracow Turning to Concentration Stimulants?-Results of the Pilot Study.

Authors: Katarzyna Nessler, Dominika Drwiła, Sylwia Kopeć, Joanna Kwaśniak, Anna Krztoń-Krolewiecka.

Mentors: Adam Windak.

Affiliation: Collegium Medicum, Jagiellonian University, Department of Family Medicine.

Introduction: Due to a strong marketing of substances that are supposed to increase the level of concentration, a rise in popularity and availability of those substances is observed in Poland. **Objective:** The objective of the study was to estimate the prevalence of psychoactive substances usage among students at Cracow universities, together with associated factors. We also aimed to reveal most commonly used substances and judge the level of students' know. **Methods:** We performed a cross-sectional survey with the use of anonymous questionnaire which included 13 questions. 500 students of five Cracow universities were included in the survey. The mean age of the examined group was 22 years, 53 % of the respondents were women. **Results:** The study revealed that 35 % of respondents use stimulants. Approxi-

mately 45 % of students using stimulants take them only during the examination period, whereas the rest also during the academic year. The study showed that the use of stimulants depends on the sex, type of university and also respondents' origin. Concentration stimulating substances are used significantly more often by female comparing to male students, with 43 % and 26 %, respectively ($p < 0.001$). Also, the study revealed that students coming from bigger cities tend to use concentration stimulants more often than those from rural areas ($p = 0.009$). Additionally, 76 % of students who use stimulants believe that they are effective, however 47 % of them admit that they do not have any knowledge about their possible side effects. What is more, 23% of stimulants users observed the side effects after using them. **Conclusion:** Our study indicated that although the usage of concentration stimulants is popular among students, the knowledge of their possible side effects and results of their overdosing is not sufficient.

Keywords: Students, Cracow, concentration stimulants, side effects

24 How Education Influences the Frequency of Follow-Ups During Pregnancy.

Authors: Cristiana Trandafir, Alexandru Istrate, Laura Stirbu, Ana Maria Marin, Madalina Stirbu, Patricia Cimpan.

Mentors: Razvan Ciortea.

Affiliation: "Iuliu Hatieganu" University of Medicine and Pharmacy of Cluj-Napoca, Faculty of Medicine.

Introduction: Adequate antenatal care has been proven to prevent a large number of pregnancy, labor and neonatal complications such as hypertension, emergency caesarean section or premature birth. **Objective:** The aim of our study is to demonstrate how education can influence the number of follow-ups during pregnancy and thus the end result: delivery of the newborn. **Methods:** Our team conducted a retrospective case-control study on 1640 patients who gave birth between January and December 2013 at the "Dominic Stanca" clinic in Cluj-Napoca. They were assigned to 2 groups by their level of education: low (did not graduate high school) and high (had at least bachelor degree). The variable "education" was then compared with the following: age, evidence of prenatal care, number of follow-ups, number of ultrasound investigations, other screening tests, gestational age at delivery (prematurity: yes/no) and child's birth weight. We performed statistical data analysis using Statsoft Statistica 10. **Results:** When we compared low to higher education levels, we found the average age: 25.08/29.74 years (t-test $p < 0.001$); median number of prenatal follow-ups: 6/9 (Mann-Whitney $p < 0.001$); median number of ultrasound investigations: 1/3 (Mann-Whitney $p < 0.001$); other prenatal screening tests: 15 %/54 % (Chi-square $p < 0.001$); child's birth weight: 3084g/3303g (t-test $p < 0.001$). We compared the education with the following: evidence of prenatal care (99 %/79.32 %; OR=139.11; 95 % CI=[37.06-1181.43]; Chisquare $p < 0.0001$) and prematurity (11.78 %/6.17 %; OR=2.03; 95 % CI=[1.38, 2.99]; Chisquare $p < 0.0001$). **Conclusion:** Educated women take antenatal care more seriously and they have healthier babies (lower rate of premature births and higher birth weight). More focus should be placed on giving guidance to less educated pregnant women in taking care of themselves and their babies. **Acknowledgement:** Razvan Ciortea MD PhD and the medical personnel of the „Dominic Stanca” Obstetrics and Gynecology Clinic of Cluj.

Keywords: Education, pregnancy, ultrasound imaging, follow-up.

25 Evaluation of Selected Factors Affecting Drinking Coffee by the Students of Public Health.

Authors: Ewa Błaszczuk, Aneta Dziura, Paweł Jagielski.

Mentors: Małgorzata Schlegel-Zawadzka.

Affiliation: Jagiellonian University Medical College, Institute Of Public Health, Health Nutrition Department.

Introduction: Caffeine and caffeine-based beverages are some of the most widely used stimulants in the world. Excessive intake of coffee can lead to exceeding the safe level of caffeine consumption. The priority is to learn the culture of coffee consumption among young people. **Objective:** The aim of the study was to assess dietary behaviors and consumption of coffee by current and former students of public health from Poland.

Methods: The study group consisted of 165 respondents, current and former students of public health of the entire Poland, aged 20 to 50 years. The participants were mostly women (90% of respondents). The research tool was an anonymous survey online, containing both quantitative and qualitative questions. **Results:** For 61% of respondents most preferred drink was instant coffee, then ground coffee. Students frequently drank one to two cups of coffee daily. Respondents most frequently pointed to the milk (147 respondents) and sugar (100 respondents) as additives maker. Students most often (34%) drank coffee in the afternoon (1.30-5.00 p.m.), the least likely (3%) at night (after 8.00 p. m.). The taste (34%) and stimulating properties of coffee (24%) were the main reason for coffee intake by students. Among respondents coffee frequently (29%) caused less drowsiness. For 22% of respondents Coffee influenced the improvement in mood for 22% of students and 21 % were more relax. Students have a relatively high level of awareness about the dangers of excess coffee consumption (85%). **Conclusion:** Students and graduates of public health more often consume instant coffee. They pay more attention to the taste of coffee, but also take into account its stimulant effect. Improved mood and relaxation are the most common symptoms declared by students after coffee consumption. Students are aware that coffee in excess can act adversely to health. **Acknowledgement:** We are grateful to the individuals who participated in this research. We thank Professor Małgorzata Schlegel-Zawadzka, Ph.D. for all support.

Keywords: Caffeine-based beverages, students, public health.

26 Identification of the Varicose Veins Precepting Factors and Workers Risk Groups.

Authors: Jevgenijs Dunajevskis.

Mentors: Marija Avota.

Affiliation: Rigas Stradins University, Medicine.

Introduction: According to the literature, the prevalence of varicose veins disease in the United States and Europe over the last decade, reaching 25 % - 35 % of women and about 15 % for men, on average, 25 % of the population. **Objective:** Evaluation of the factors, leading to varicose veins disease. **Methods:** High risk groups and professional factors in the analysis of multi - country and source data. **Results:** The analysis of literature data sources identified several risk factors. The leading role takes family history, which is positive 42 % of cases, with a higher risk among firstdegree relatives. Prevalence of the disease varies with age of individuals. In the age group from 18 to 24 years it constitutes 11.5 %, while the group from 55 to 64 years, reaching 55.7 %. Including the gender gap between men and women aged < 30 g is 1 % to 10 % followin, but at the age of > 70 from 57 % to 77 %. Clearly important factors in the development of the disease is multiple pregnancy, a history of deep vein thrombosis, increased intraabdominal pressure, pelvic malignancies, pelvic surgery, genetic predisposition, body mass index > 25 kg/m2, chronic cough, oral contraceptives and smoking. **Conclusion:** Certain specifics of the work, in combination with the positive factors provoking potentiates the development of varicose veins disease. Involvement of individuals in working age reduces the number of qualified working professionals, not only in quality of life but also have a negative impact on the state budget. Accurate and timely diagnosis of risk factors, as well as identification of potential patients can reduce the development of complications and subsequent treatment costs. **Acknowledgement:** Special Thank for doc. Marija Avota who helped me in compiling my data, performing my experiment, researching information, and formatting my science project. Rigas Stranins University.

Keywords: Varicose veins, evaluation of the factors, risk occupations, simptoms, treatment.

27 Anorexia in Polish.

Authors: Anna Dittfeld, Katarzyna Gwizdek, Aneta Koszowska, Justyna Nowak, Anna Brończyk- Puzoń.

Mentors: Andrzej Knapik.

Affiliation: Medical University of Silesia, Department of Histology and Embriology.

Introduction: In a contemporary world it is fashionable to have skinny body. At once young women's life is more and more focused around

Internet. Global network becomes source of information and inspiration, sometimes even dangerous for health and life of Web users. One of examples can be websites with a content of "pro-ana", which aim is to promote anorexia nervosa as an attractive lifestyle. **Objective:** Aim of the study was to recognize contents of polish websites promoting anorexia nervosa. **Methods:** In a research contents of 50 polish websites with a content of "proana" were analyzed. **Results:** Majority of websites were blogs , a kind of diet diaries; their aim was to support readers. Most of analyzed websites presented thinspirations (pictures inspirting to be thin). Almost half of them contained fitspirations (inspiration to physical activity). 43 % of websites provided information about destroying diets, 19% informed about stimulants and 24 % about drugs, which could help in weight loss. One in five pages promoted selfmutilation as a motivation. **Conclusion:** Message from analyzed pages convince that "pro-ana" is an attractive and harmless lifestyle. Websites with a content of "pro-ana" promote weight loss by destroying diets, using stimulants and drugs; they also encourage to punishment for derogation from the diet. Aiming to desired goal, an excessively thin body, by looking for inspirations and support in the Internet can influence health negatively.

Keywords: Anorexia nervosa, Internet, Poland.

28 What Do We Know About the Thief of Bones?.

Authors: Kamila Bąk, Joanna Blicharz, Daniel Piątek, Magdalena Farjaszewska.

Mentors: Roża Czabak-Garbacz.

Affiliation: Medical University of Lublin, Department of Human Physiology.

Introduction: Osteoporosis is a systemic disease of the skeleton,. Its main symptoms are low density and impaired micro-architecture of bones, which become more susceptible to fractures. All over the world 75 millions people are affected by the osteoporosis. Appropriate knowledge and prophylaxis may decrease the incidence of this disease. **Objective:** The aim of this study was to check the knowledge on the causes and prevention of the osteoporosis among women living in villages and large agglomerations of central Poland. **Methods:** The study was performed with the use of anonymous questionnaires in the group of 468 women - 287 rural and 181 urban. **Results:** Although respondents from big cities in higher percentage then those from villages listed underweight, lack of vitamin D and taking steroids as a cause of osteoporosis, they similarly often pointed properly short height, smoking, drinking caffeine and alcohol, and incorrectly white skin colour and short stature. As means of osteoporosis prevention they mentioned more frequently physical activity, sunbathing, avoiding fat and salt in diet but equally often high consumption of calcium and milk products. **Conclusion:** Urban women in comparison to rural revealed a little bit smaller knowledge of causes and prevention of osteoporosis. It probably arises from their worse access to specialist clinics, and preventive actions as well as lower education. In order to prevent diseases associated with the progress of civilization which include the osteoporosis the decision-maker of the Polish Health Service should extend educational and preventive actions over small country environment, provincial ones. The improvement in the level of knowledge on osteoporosis among women living in villages may next positively influence their behaviour and consequently ameliorate their health status and reduce the expenditure on treatment. **Acknowledgement:** I would like to express my sincere gratitude to dr n med. Roża Czabak-Garbacz, who helped me with this paper.

Keywords: Osteoporosis.

29 Influence of Risky Listening Habits on Hearing Loss Among Students of Medical University of Białystok.

Authors: Łukasz Wałejko, Paweł Muszyński, Anna Samluk, Piotr Maciejczuk, Joanna Szczepańska, Martin Rydygel, Nicoletta Iłowska, Monika Radecka, Ewa Kramarz.

Mentors: Beata Modzelewska.

Affiliation: Medical University of Białystok, Faculty of Medicine with the Division of Dentistry and Division of Medical Education In English.

Introduction: There is increasing concern that many everyday leisure activities have the potential to expose individuals to unsafe noise le-

vels. Attending concerts, clubs, live bands and listening to portable personal music players have all been identified as potentially damaging to hearing quality in youth. **Objective:** The goal of our research was to estimate the threshold of hearing and its dependence on frequent and loud listening to music for long periods of time and on different types of earphones used. **Methods:** In total, 140 students (18-26 years old) of the Medical University of Białystok were invited to complete questionnaires about their music-listening habits. The pure tone audiometry was performed to ascertain their hearing thresholds at standard frequencies (0.25 kHz and 8 kHz). **Results:** Among all participants, 4 were excluded from further analysis due to ongoing infection or diagnosed hearing impairment reported in the questionnaire. Low (LFHL) or high frequency hearing loss (HFHL) appeared in 5 students (3.7 % of total 136 subjects included) and didn't correlate with loud listening, prolonged listening or using in-ear headphones. Noise induced threshold shift (NITS) was observed in 9 persons (6.6 %) and is significantly more frequent among students using supra-aural headphones. All students with NITS listened to music less than 4 hours per day. Of those with NITS, 56 % declared listening to music "not loud" – 5, 56 % and "loud" – 44 %, the difference was not significant. LFHL or HFHL was detected in 3 students (33.3 %) with NITS. **Conclusion:** Our analysis does not indicate any substantial dependence between LFHL and HFHL found in students and their music listening habits but it shows statistically significant dependence on using in-ear headphones and NITS among students. Our finding may suggest that using this type of headphones is safer than supra-aurals. **Acknowledgement:** We would like to thank all people who helped us during our research work. Special thanks to Beata Modzelewska for her assistance and helpful advice. Without her experience it would be much more difficult to finish the work. We are also grateful to Maria Karpińska for enabling us to work in the Department of Biophysics and for granting us access to the equipment. We would like to express our sincere gratitude and appreciation to the University Authorities and the Department of Biophysics staff (especially to Grzegorz Kulesza) for the support they have given us.

Keywords: Hearing loss, listening music, audiometry, risky listening habits, LFHL, HFHL, NITS, NIHL.

CLINICAL MEDICINE - SURGERY, GYNECOLOGY

- 30 **Winner: Duodenopancreatectomy with Vascular Reconstruction.**
Authors: Kristian Šimko.
Mentors: Daniel Pindák.
Affiliation: Slovak Medical University in Bratislava, Department of Surgical Oncology of the Slovak National Oncology Institute, Faculty of Medicine.

Introduction: Pancreatic cancer is such a severe diagnosis, that its mortality is close to its incidence. Surgical resection (duodenopancreatectomy = DP) still represents the only generally accepted method of treatment with a chance of survival. Good results can be achieved with small tumors in the proximity of the major duodenal papilla and the cholangiocarcinomas of the distal bile ducts. Worst prognoses from this group of tumors have ductal adenocarcinomas of the pancreatic head. **Objective:** We evaluated the importance of DP with vascular reconstruction and compared our results with other international publications (the largest metaanalysis of 1967 patients, who underwent different types of DP). **Methods:** During the years 2010-2012 at the Department of surgical oncology of the Slovak National Oncology Institute, 118 resections on the pancreas took place. In this cohort of patients, we retrospectively evaluated the percentage of DP with or without vascular reconstruction. Furthermore, we assessed the risk of complications accompanying the additional vascular reconstruction. **Results:** In 58 cases, the reason was a pancreatic cancer, out of which in 13 cases (22.4 %) an additional vascular reconstruction was performed. Based on our data, we didn't find any notable connection between the DP with vascular reconstruction and the rise of number or severity of complications in comparison to the standard DP. The morbidity and mortality was also comparable to the standard procedure and corresponded with various international studies. **Conclusion:** According to our retrospective analysis of a relatively small cohort of patients and its accord with world literature, we concluded, that DP with

vascular reconstruction is without any relevant complications in comparison to the standard DP. **Acknowledgement:** Doc. MUDr. Daniel Pindák, PhD., Department of surgical oncology of the Slovak National Oncology Institute, Faculty of Medicine Slovak Medical University in Bratislava.

Keywords: Duodenopancreatectomy, Vascular reconstruction, Pancreatic cancer.

- 31 **Winner: The Role of Selected Parental and Perinatal Factors in the Future Mobility of Children with Myelomeningocele.**
Authors: Joanna Olga Bagińska, Alicja Liszewska, Agata Korzeniecka-Kozerska.
Mentors: Agata Korzeniecka-Kozerska.
Affiliation: Medical University of Białystok, Faculty of Medicine.

Introduction: Myelomeningocele (MMC) remains the most severe form of neural tube defects, involving dysfunctions of many organs and structures with an estimated prevalence of one in 700 live births. The etiology is largely unknown. It has been suggested to have multifactorial origin in which both genetic and environmental factors appear to be involved. The distal spinal cord has a fundamental role in bladder function. A lesion in this region secondary to MMC results in the neurogenic bladder. The quality of life and future mobility of children with that disease depend on the level of spinal lesion. **Objective:** The aim of our study was to explore the role of selected factors: parental and perinatal in children with MMC and correlate them with their future motor function. **Methods:** This retrospective analysis was based on 95 deliveries that took place from 1985 to 2013. Clinical data were collected using medical records and completed by a questionnaire for parents with questions about parental age, birth order, history of complications during pregnancy, mode of delivery, Apgar scale, birthweight and length, gestational age. Hoffer scale was used to assess MMC children motor function. **Results:** There was no statistically significant differences between 53 girls and 42 boys who were enrolled in the study excluding month of conception. Tested parameters did not vary substantially according to maternal age. Mode of delivery was strongly associated with Apgar scale and birthweight. Maternal age correlated positively with paternal age at conception and stillbirth rate. Apgar score and birthweight had a positive correlations with future mobility of MMC children. **Conclusion:** 1. Perinatal factors have a significant influence on children's physical activity. 2. Mode of delivery is an important factor determining the well-being of the child. 3. The course of the pregnancy and birth parameters of MMC children did not vary significantly according to the maternal age. **Acknowledgement:** We thank the Department of Pediatrics and Nephrology of The Medical University of Białystok Children's Clinical Hospital for the support for this work and the parents of children with myelomeningocele for participating in this study.

Keywords: Myelomeningocele, neurogenic bladder, parental factors, perinatal factors.

- 32 **Winner: Primary Tumor Site and Histology as Prognostic Factors After Hepatic Resection in Patients with Non-Colorectal Non-Endocrine Liver Metastases.**
Authors: Sylwia Gajda, Mariusz Ligocki, Marcin Morawski, Anna Trzeciecka.
Mentors: Oskar Kornasiewicz.
Affiliation: Warsaw Medical University, Medicine.

Introduction: Hepatic resection in patients with colorectal liver metastases (CLM) has become a standard therapy, associated with a very low mortality and prolonged 5-year survival approaching 40 %. Many present studies evaluate whether liver resection is an option for patients with non-colorectal non-endocrine liver metastases (NCNELM). Nevertheless, despite promising results, the value of this procedure in NCNELM remains controversial, mainly due to heterogeneity of the primary site and histology of tumor. **Objective:** The aim of the study was to assess relevance of primary tumor site and histology as prognostic factors in patients who underwent hepatic resections for non-colorectal non-endocrine metastases. **Methods:** Clinical data of 173 patients with liver metastases from noncolorectal non-endocrine tumors, who underwent liver resection in 1999-2013 were reviewed retrospectively. The long-term survival was estimated with the Kaplan-Meier method. Univariate and

multivariate analyses were performed to determine prognostic value of the primary tumor site and histology for patients' survival. **Results:** 1. Survival comparison of NCNELM to CLM: • 1,3,5-year survival in a group of NCNELM in comparison with CLM: 79.1/56.2/47.4 % vs. 88.0/61.5/47.6 %. • 5-year survival percentage is correlated ($p < 0.05$) with an age of patients: 21-48/48-65/ 65-80 years; 58.8/47.2/43.7 % (HR=1.28/12 years). 2. 5-year survival comparison depending on primary site: GIST 81.6%, reproductive tract cancer 67.5 %, genitourinary tract cancer 45.8 %, breast carcinoma 43.9 %, GI- tract cancer 38.9 %, melanoma 32.5 %, respiratory tract cancer 23.6 %. 3. 5-year survival and hazard ratio comparison depending on histology. Tumors divided into 3 groups: sarcoma/adenocarcinoma/melanoma. Hazard ratio (HR): 1/3.31/4.75 relatively for the sarcoma metastases ($p < 0.05$). 5-year survival comparison: 81.9/45.9/32.5 %. ($p < 0.05$). **Conclusion:** Hepatic resection in NCNELM similarly effective to CLM. Primary tumor site and histology are important survival prognostic factors. Further investigation has to be done.

Keywords: Hepatic resection, non-colorectal non-endocrine liver metastases, survival.

33 The Effects of Hypertension During Pregnancy on Newborns.

Authors: Cristiana Trandafir, Alexandru Istrate, Laura Stirbu, Ana Maria Marin, Madalina Stirbu, Patricia Cimpan.

Mentors: Razvan Ciortea.

Affiliation: "Iuliu Hatieganu" University of Medicine and Pharmacy of Cluj-Napoca, Faculty of Medicine.

Introduction: High blood pressure during pregnancy is a common risk factor for premature birth and small for gestational age (SGA) newborns. It is also associated with spontaneous abortions and a low APGAR score. Up to 10% Caucasian pregnant women have this disease (5% being diagnosed before pregnancy, 5% being pregnancy-induced). **Objective:** This study aims to evaluate the effects of high blood pressure during pregnancy on newborns. **Methods:** We performed a case-control study on 1640 pregnant women with live births. The women were hospitalized during January-December 2013 in the „Dominic Stanca” Obstetrics and Gynecology Clinic of Cluj, Romania. The case group consisted of 92 women with hypertension during pregnancy, while the controls comprised 1548 apparently healthy pregnant women. We analyzed the distribution and associations between maternal hypertension, time of delivery, the newborn's weight, APGAR score and history of spontaneous abortions and premature births using Statsoft Statistica 10. **Results:** The women's mean age was 28.57 years (range 13-45) and the frequency of hypertension among premature birth was 5.6%. The time of delivery varied: 75.3% were on term, 14.9% were preterm and 9.8% postterm. Mean newborn weight was 3200 grams (range: 740-5100). Median APGAR score was 10 (range: 1-10). A history of premature births was found in 2.03% and of spontaneous abortions in 17.2% of the pregnant women. We observed a positive association between hypertension and: premature birth (OR: 2.61; 95% CI: [1.7-4], $p < 0.001$), APGAR score (OR: 3.14; 95% CI: [1.19-8.33], $p = 0.04$) and SGA newborns (OR: 2.19; 95% CI: [1.34-3.56], $p = 0.01$). But we had no significant associations between hypertension and a history of spontaneous abortions or premature births. **Conclusion:** In our sample population high blood pressure during pregnancy is associated with a low APGAR score, premature birth and SGA newborns. However, it is not associated with a history of spontaneous abortions and of premature births. **Acknowledgement:** Razvan Ciortea MD PhD and the medical personnel of the „Dominic Stanca” Obstetrics and Gynecology Clinic of Cluj.

Keywords: Hypertension during pregnancy, spontaneous abortion, underweight newborn, APGAR score.

34 Smoking Patterns in Pregnancy and Its End Effects on the Newborn.

Authors: Alexandru Istrate, Cristiana Trandafir, Laura Stirbu, Ana Maria Marin, Madalina Stirbu, Patricia Cimpan.

Mentors: Razvan Ciortea.

Affiliation: "Iuliu Hatieganu" University of Medicine and Pharmacy of Cluj-Napoca, Faculty of Medicine.

Introduction: Specialists discourage smoking during pregnancy as it has been associated with numerous complications such as hypertension

and premature birth. **Objective:** In our study we wish to discover which mothers are prone to smoking during this time and the end effects of tobacco use on the newborn. **Methods:** Our team conducted a retrospective case-control study on 1640 patients who gave birth between January and December 2013 at the “Dominic Stanca” clinic in Cluj-Napoca, Romania. They were assigned to 2 groups: Smokers (S+); case) and Non-smokers (S-); control). The variable smoking was then compared with the variables: age, education, number of spontaneous abortions, gestational age at delivery, child's birth weight. We performed statistical data analysis using Statsoft Statistica 10. **Results:** The prevalence of smoking in the groups was: overall 18.89%; depending on age: 22.06% under 28 years, 15.88% over 28 years; depending on education: 28.11% low educated, 8.13% highly educated. The average number of cigarettes per day was 9.02 (range 1- 30). The association between smoking and history of spontaneous abortions was: S(+)=19.92 %; S(-)=18.59 %; OR=1.08; 95 % CI=[0.78-1.53]; Chi-Square $p = 0.617$. The association between smoking and the number of premature births was: S(+)=53.33 %; S(-)=18.1 %; OR=5.17; 95 % CI=[2.9-10.72]; Chi-Square $p = 0.0001$. The influence of smoking to the average child's birth weight was: S(+)=2975 grams; S(-)=3295 grams, t-test $p < 0.0001$. **Conclusion:** Approximately 2 out of 10 women smoke during pregnancy, especially those who are under 28 years and had low levels of education. Since tobacco use has been associated in our study with premature births and lower child birth weight, more focus should be placed counseling on less educated young women regarding smoking during pregnancy. However, further investigation is needed to see why we didn't find any association between smoking and spontaneous abortions. **Acknowledgement:** Razvan Ciortea MD PhD and the medical personnel of the „Dominic Stanca” Obstetrics and Gynecology Clinic of Cluj.

Keywords: Smoking, pregnancy, premature births, spontaneous abortion.

35 Twin Chorionicity and Risk of Preeclampsia.

Authors: Pawel Bartnik, Joanna Kacperczyk, Klaudia Wypych.

Mentors: Iwona Szymusik.

Affiliation: Medical University of Warsaw, 1st Faculty of Medicine.

Introduction: Twin pregnancy is associated with an increased risk of preeclampsia. However, it is uncertain how chorionicity of twin pregnancy affects this risk. Recent studies (Sparks TN, 2013; Sarno L. 2013) indicate higher risk of preeclampsia in dichorionic pregnancies (DCP). **Objective:** The main aim of the study was to verify the results of the mentioned researches and additionally analyse aspects and complications of preeclampsia-affected pregnancies (PAP). **Methods:** It was a retrospective analysis of selected patients who gave birth at the 1st Department of Obstetrics and Gynaecology, Medical University of Warsaw, between 2007 and 2013. Two groups were formed – 189 women with dichorionic pregnancies and 60 women with monochorionic pregnancies. The following parameters were analysed: age, BMI, obstetric history, infertility treatment, hypertension history, chronic renal diseases, fetal intrauterine growth restriction, blood pressure, proteinuria, oedemas, time of hypertension onset, liver enzymes level, neurological complications, treatment of hypertension, caesarean section rate with indications, premature rupture of membranes (PROM), newborns' birth weight, Apgar score at 1st and 5th min. The data were analysed with SAS software, with elements of multiple factor analysis and with p value < 0.05 considered significant. **Results:** Patients with DCP had significantly higher chances to develop preeclampsia (OR=5.26; 95 % CI 1.17-32.93; $p = 0.013$) than MCP. Although it was confirmed that DCP mostly increased chances to develop mild preeclampsia (OR=4.71; 95 % CI 1.04-29.64; $p = 0.024$), its association with severe preeclampsia was not confirmed. However, DCP were not more likely to develop gestational hypertension in comparison to MCP (8.99 % vs. 8.33 %; $p = 0.86$). 80.7 % of PAP developed mild hypertension, while 9.7 % moderate. In 38.7 % of PAP proteinuria exceeded 1.0 g/day. PAP did not differ in the rate of IUGR occurrence ($p = 0.82$), thrombocytopenia ($p = 0.63$) and elevated liver enzymes ($p = 0.23$) from the not-affected pregnancies. **Conclusion:** Increased chorionicity does not increase the risk of gestational hypertension. However, DCP is a stronger risk factor for preeclampsia than MCP. **Acknowledgement:** 1st Department of Obstetrics and Gynecology, Medical University of Warsaw.

Keywords: Twins, chorionicity, preeclampsia, gestational hypertension

- 36 **Time is (Not?) A Great Healer - Day of Surgery Affects Length of Stay.**
Authors: Alicja Lachowska, Kinga Michalewska, Adam Polak.
Mentors: Jakub Kenig, Michał Romaniszyn.
Affiliation: Jagiellonian University Medical College, 3rd Department of General Surgery Jagiellonian University Medical College.

Introduction: It is well established that factors like late night procedures or weekend admittance have a great influence on mortality, morbidity and hospitalization. However, effects connected with the day of the week on which a surgery is performed have not been thoroughly investigated. **Objective:** Our objective is a deeper examination of influence of the day of the week on the length of stay (LOS). **Methods:** This is a retrospective study of a database of one surgical department containing all procedures from 01/2005 to 09/2013. Three groups of patients who had procedures with 2, 3 and 4 days median LOS were isolated and underwent exploratory data analysis. Chi-square test, logistic regression (including demographics, comorbidities, complications) and Kruskal-Wallis test were used for a statistical analysis. For a deeper insight, elective cholecystectomy and emergent appendectomy, open and laparoscopic, were analysed. **Results:** Patients who underwent procedures with 2 days median LOS (n=8559), when operated on Friday, are less frequently discharged within the first 3 postoperative days (OR=1.99, p<0.001). Similar effects were proved in case of both 3 and 4 days median LOS groups as well as for laparoscopic cholecystectomy and open appendectomy. The effect was not observed in case of laparoscopic appendectomy. For open cholecystectomy our results were inconclusive. Moreover, Friday open appendectomy patients stay in the hospital for 0.64 days longer on average (p=0.026) and are less frequently discharged within the first 3 postoperative days (OR=2.49, p=0.011). **Conclusion:** Since there are no Sunday discharges in the department, there should be oneday delay of administrative nature for patients supposed to be discharged on Sunday according to a standard LOS for a specific procedure. However, a significant part of patients has even longer delay than expected when their early postoperative period contains weekend. Furthermore, Friday appendectomy patients have significantly longer hospitalization, probably due to late week surgery and weekend recovery.

Keywords: Day of week, length of stay, hospitalization, appendectomy, cholecystectomy.

- 37 **The Influence of Psychosocial and Obstetric Factors on Baby Blues Syndrome During Postnatal Period.**
Authors: Damian Warzecha, Sylwia Gajda.
Mentors: Katarzyna Kosińska Kaczyńska.
Affiliation: Medical University of Warsaw, MEDICINE.

Introduction: Baby blues syndrome occurs in over 50% of new mothers defined as specific emotional state of depressed mood. It is different from postpartum depression which lasts longer and has more severe symptoms. **Objective:** The aim of the study was to determine the influence of 18 psychosocial factors and 18 obstetric complications on the occurrence of baby blues syndrome. **Methods:** A questionnaire was created by the authors with elements of the Edinburgh Postnatal Depression Scale (EPDS). The cut-off value for diagnosing baby blues was 10 points. Women filled out the forms themselves, which were anonymous. 192 mothers, hospitalized at the 1st Department of Obstetrics and Gynecology, MU of Warsaw between 10.2013 and 02.2014 answered the questionnaires during the first 5 days after delivery. 7 women refused to fill the questionnaire. For statistical analysis Fisher test, Chi2 test and multiple regression analysis were performed. **Results:** 24.4% of patients had the result .10 points in EPDS. The differences between women with and without "baby blues" such as: age, parity, duration of pregnancy, newborns' weight and mode of delivery were statistically insignificant. In the "baby blues" group more patients were subjected to stressful situations during pregnancy (48.84 % vs 29.66 %; p=0.02), more had suicidal attempts in the past (6.38 % vs 0 %; p=0.01). Newborns in the "baby blues group were more often admitted to ICU (25.53 % vs 11.11 %; p=0.02). In multiple regression analysis none of all analyzed factors had significant influence on baby blues occurrence. Only

newborns' pathologies had an OR=1.86 with a p-value of 0.08 (near significance). **Conclusion:** Stress and problems with the child seems to play a negative role on a new mothers mood. Defining negative factors may have a clinically important meaning in order to select patients with a high risk of affect disorder. Special care for them could be beneficial for child development, mother-child relations and a better postpartum mood. **Acknowledgement:** Supervisor dr: dr n. med. Katarzyna Kosińska Kaczyńska.

Keywords: Baby blues, depression, EPDS.

- 38 **Effectiveness of Surgical Treatment of Tethered Spinal Cord.**
Authors: Anna Drożdż, Justyna Rybus, Paula Piątek, Dorian Gładysz.
Mentors: S. Kwiatkowski, Z. Kawecki.
Affiliation: Jagiellonian University Medical College, Medicine.

Introduction: Tethered spinal cord syndrome (TSCS) is caused by tissue attachments that limit movement of the spinal cord within the spinal column. TSCS is mainly an effect of surgical treatment of myelomeningocele. Typical symptoms are scoliosis, weakness of the limbs, urinary and stool incontinence. Decision of operating is difficult due to variety of lesions and clinical presentations. **Objective:** The aim was to assess the change in the severity and character of symptoms presented in patients due to TSCS. To obtain the most authoritative results the questionnaire survey was performed. **Methods:** The research group consisted of 55 children, girls 32 and boys 23 (1.39:1) with mean age 7.39 years, median 7 years and range from 0.42 to 24 years, treated cause of TSCS at the Department of Pediatric Neurosurgery, Jagiellonian University Medical College in Krakow between the years 2008 and 2013. **Results:** The most frequent symptoms were urinary incontinence- 69.1 % of patients, and spasticity- 54.5 % of cases. TSC mostly occurred on one vertebral level (43.6 %), L3 level (8 cases), and less frequent on L4 (7 cases). On two levels TSC appeared in 30.9 % of cases, mainly on level L5-S1 (7 patients). Signs of hydrocephalus were presented by 21.8 % patients mainly in group after MMC surgery. The average time between primary lesion operation in case of MMC to surgery operation of TSC was 7.6 years. In the research group 11 patients needed reoperation. In 40.7 % of cases treatment resulted in benefits for the patients leading to decrease of symptoms, in 33.3 % surgery stopped disease progression. **Conclusion:** Late results of this procedure are generally good. The decision whether to operate must be based on coherent clinical, radiological and urological premises. Surgery should be performed early, before irreparable deficits appear. The questionnaire survey results are currently analyzed. **Acknowledgement:** I would like to thank my supervisors dr hab.med. S. Kwiatkowski and dr n. med. Z. Kawecki for providing materials for our research work.

Keywords: Tethered spinal syndrome, surgical technique.

- 39 **The Analysis of the Prenatal, Postnatal Factors and Their Impact on Children's Body Posture - A Pilot Study.**
Authors: Blicharska Irmiona, Gwizdek Katarzyna, Biernat Monika, Dittfeld Anna.
Mentors: Andrzej Knapik.
Affiliation: Medical University of Silesia, Department of Physical Education.

Introduction: Nowadays, theories that indicate the causes of many defects and diseases as initiated in infancy and even the prenatal period are more popular than ever. Concepts related to the structural integration show a relationship between body posture represented by an adult man, and his previous form as a fetus in the mother's womb. **Objective:** The aim of the study was to assess the impact of prenatal and postnatal factors on body posture of children and adolescents. **Methods:** The study group consisted of 11 examined children and adolescents of both genders, aged x=10.32 with correct body posture. The control group was formed by 11 examined children and adolescents of both genders of similar age with incorrect posture, with some abnormalities. The research tool used was the author's questionnaire which asked parents about the children's parameters measured immediately after birth, e.g.:

birth weight, head circumference, chest, body length and value of the Apgar scale in the first minute of life. Visual assessment method according to Kasperczyk determined posture. **Results:** Children with poor posture, were newborns with larger circumference of the head and the body length in comparison to the group with correct posture. Statistical analysis using the students' T-test shows a statistical significant differences of $p < 0.05$. Oddly enough, the study group had a statistically significant lower birth weight and shorter gestation period. **Conclusion:** It is necessary to continue research and to extend materials in order to find the prenatal factors affecting the later development of the child. This can lead to predicting which children are at risk and implementing preventive measures. Better posture of children with lower birth weight and shorter gestation may be the result of undertaken rehabilitation.

Keywords: Body posture, infancy, fetal life.

CLINICAL MEDICINE - INTERNAL MEDICINE, PEDIATRICS

- 40 **Winner: Somatic Development In Children with Myelomeningocele.**
Authors: Liszewska A, Bagińska JO, Korzeniecka-Kozerska A.
Mentors: Agata Korzeniecka-Kozerska.
Affiliation: Medical University of Białystok, Faculty of Medicine.

Introduction: Neural tube defects - serious congenital malformations affect around one in every 1000 pregnancies. Myelomeningocele (MMC) is the most severe form of spina bifida. The related handicaps are dependent on the level of the spinal lesion and secondary damage of nervous system. Sensory and motor impairment of the urogenital region in MMC patients leads to neurogenic bladder. Lack of voluntary control over bladder function (detrusor-sphincter dyssynergia or detrusor overactivity) increases in these patients the risk of recurrent urinary tract infections, kidney stone formation, vesicoureteral refluxes and progressive upper urinary tract damage due to long lasting high detrusor pressure. **Objective:** The aim of this study was to assess physical development parameters of children suffering from myelomeningocele and correlate them with perinatal factors and level of nervous system deterioration and physical activity. **Methods:** A retrospective clinical estimation based on 56 medical records (23 males, 33 females) from a 13-year period. Collected data included: age, gender, height, weight, BMI, level of lesion and activity (Hoffer's scale) and perinatal factors (birth weight, birth length, Apgar scale). Additionally Z-score WHO and PL were calculated. Statistical analysis was performed using Statistica 10.0. **Results:** The mean age of girls was 13,49 years and 9,92 years of boys. There was no difference between boys and girls in the group. Comparison of the ZscorePL showed deviation between groups of boys and girls. In children with hydrocephalus and / or valve physical parameters and motor function varied significantly. Positive correlations between the Hoffer's scale and the occurrence of hydrocephalus and valves in patients was statistically substantial. **Conclusion:** 1. The analysis of WHO somatic development parameters has not revealed any significant deviations among MMC patients. 2. Physical development parameters vary significantly depending on the level of spinal lesion. 3. Motor function in MMC patients correlates with perinatal factors and is related to the place of residence. **Acknowledgement:** We thank The Medical University of Białystok Children's Clinical Hospital of L. Zamenhof Department of Paediatrics and Nephrology for access to medical records and the support for this work.

Keywords: Child, somatic development, myelomeningocele, neurogenic bladder.

- 41 **Winner: Physical Activity of STEMI Patients After Cardiac Rehabilitation.**
Authors: Pawel Bartnik, Jan Orlewski.
Mentors: Pawel Balsam.
Affiliation: Medical University of Warsaw, 1st Faculty of Medicine.

Introduction: While there is common agreement regarding the efficiency of cardiac rehabilitation (CR) in improving the prognosis of

patients after ST-elevated myocardial infarction (STEMI), improving physical activity (PA) after CR is another important goal in STEMI patients. **Objective:** Aim of our study was to estimate the physical activity in STEMI patients after CR, and analyse possible association of CR parameters and PA. **Methods:** It was a retrospective analysis of STEMI patients who underwent CR in years 2007-2012. The group consisted of 86 patients after wide exclusions; the mean time of follow-up was 33 months (max. 90 months). Information on patients' current activity was assessed with validated International Physical Activity Questionnaire (IPAQ), which takes into consideration time per day and week spent on vigorous (e. g. quick-paced running) and moderate (riding bike) activity, walking and sitting. Mean time spent per week on each type of activity, as well as the initial metabolic equivalent of task score (METs), METs after CR, improvement of METs over the course of CR, were assessed. **Results:** The form of PA on which patients spent the greatest amount of time was sitting (av. 1494 min/week; median 1200 min/week), with 100 % of patients participating in this form of PA. The second form of PA, which was cultivated by 87.2 % was walking (av. 402 min/week; median 195 min/week). 62.8 % of patients after CR cultivated moderate activity (av. 260 min/week; median 60min/week) and 13.9 % of CR patients conducted vigorous activity (av. 47min/week). The only statistically significant association found during comparison of CR parameters and PA at follow-up, was the negative relation between increase of METs during CR and amount of moderate PA at follow-up ($p=0.037$). **Conclusion:** Majority of patients maintain physical activity long after CR, which is mostly walking and moderate PA. There is a negative relation between increase of METs and moderate PA at follow-up. **Acknowledgement:** 1st Chair and Department of Cardiology, Medical University of Warsaw.

Keywords: STEMI, cardiac rehabilitation, physical activity.

- 42 **Winner: Analysis of Handwriting in Parkinson's Disease Patients Using Digitizing Tablet.**
Authors: Lucia Masarova.
Mentors: Irena Rektorova.
Affiliation: Masaryk University, Faculty of Medicine.

Introduction: Micrographia, one of the latest clinical sign of Parkinson's disease (PD), affects handwriting. It is caused mainly by motor symptoms of PD. Onset of motor symptoms in PD is typically asymmetric. The resting tremor, bradykinesia and rigidity are more expressed either in right or left upper extremity. **Objective:** The aim of this study was to assess the micrographia in PD compared with healthy controls (HC) using digitizing tablet. In addition the relationship between micrographia in either right or left-sided onset of PD was analyzed. **Methods:** In prospective study, seven writing exercises were assessed in 40 PD and 40 HC using a digitizing tablet ranging from single letter, word to complete sentence. All subjects were right-handed, without the presence of depression or dementia. The speed parameters of writing were evaluated during the pen movement on and above the tablet surface. Mann-Whitney U test and Benjamini-Hochbergs method were used for statistical data analysis. **Results:** 40 PD (mean 68.6 ± 11.36 years, duration of illness 8.02 ± 4.79 years) and 40 age and sex-matched HC (mean 62.55 ± 11.22 years) were enrolled in the study. The differences in parameters of velocity, acceleration and jerk were statistically significantly reduced when comparing both groups. The longer the written word, the more changes in velocity parameters there were. The differences between two groups were even more significant when movement between the words of the sentence was assessed. On an average, the values of studied parameters decreased by about 20% when compared with HC. Micrographia in PD with right-sided onset of disease was more significant than those with left-sided onset of PD. **Conclusion:** PD specific changes were observed not only during writing but also between finishing one word and starting a new word of sentence. The results of this study suggests that the evaluation of micrographia may be used as a clinical marker of early PD detection. **Acknowledgement:** This research was supported by the project NT13499 (Speech, its impairment and cognitive performance in Parkinson's disease), CZ.1.07/2.3.00/20.0094, project CEITEC, Central European

Institute of Technology: (CZ.1.05/1.1.00/02.0068) from the European Regional Development Fund and by FEDER and Ministerio de Economía y Competitividad TEC2012-38630- Co4-03.

Keywords: Micrographia, Parkinson's disease, handwriting

43 Evaluation of Myocardial Diastolic Function in Patients with Essential Hypertension in Combination with Chronic Obstructive Pulmonary Disease in Dynamics of Treatment with the Use of Meldoni Phosphate.

Authors: Inna-Margaryta Zakorko.

Mentors: Valentina Psareva.

Affiliation: Sumy State University, Therapy.

Introduction: Due to the lack of positive results of new pharmacological treatment of cardiovascular pathology combined with COPD, it remains to be a relevant introduction into clinical practice of drugs, that can positively influence to the transmitral circulation. **Objective:** To assess the violations' types of diastolic function in patients with hypertension and COPD in dynamics of treatment using meldoni phosphate. **Methods:** The studied group was randomized into 2 groups: the first group (25 persons) received a baseline bronchodilator and antihypertension therapy and the second group (27 patients) in addition to the indicated treatment received meldoni phosphate (Mildronat GX) at a dose of 1,0 g / day. The patients were conducted 16 weeks. Monitoring of general clinical and biochemical parameters, ECG, spirometry, echocardiography was conducted at the beginning and end of the study. **Results:** By the analysis of the types of diastolic dysfunction before treatment in the first group 10 (40%) patients had a first type of LV's (left ventricle) diastolic filling - slow relaxation, 9 (36%) patients - pseudonormal type, 6 (24%) patients - the type of restrictive transmitral circulation (TMC). At the background of ongoing basic treatment an increase of 8 % of the first type of diastolic dysfunction and absence of restrictive and normal types of TMC were found. In the second group before treatment 10 (37%) patients experienced a violation of relaxation, 10 (37%) - pseudonormal type of TMC, 7 (26%) - restrictive type. After treatment 9 (33.33%) patients had a normal diastolic function of LV, 13 (48%) patients - the first type of left ventricular diastolic filling, 5 (18.51%) patients - pseudonormal type. **Conclusion:** Inclusion in the treatment meldoni phosphate contributed more pronounced hemodynamic improvement in patients with essential hypertension combined with COPD.

Keywords: Transmitral circulation, hypertension, chronic obstructive pulmonary disease, meldoni phosphate.

44 Thyroid Volume, Metformin and Patients' Weight.

Authors: Jeļena Prokofjeva, Marta Grūbe, Svetlana Sergejenko.

Mentors: Ilze Konrāde.

Affiliation: Rīga Stradiņš University, Medicine.

Introduction: According to research, 11 % 2nd type diabetes patients have thyroid abnormalities. Such factors as leptin effect on weight and role of APMK are important pathogenesis factors as well as the influence of therapy on both pathologies, and their interaction. Metformin is being actively investigated in connection of its influence to reduce thyroid stimulating hormone level and thyroid volume. **Objective:** To prove a correlation between changes in thyroid function in relation to the volume with obesity and diabetes type 2, evaluating patient's analyzing thyroid USG, laboratory data with physical therapy. **Methods:** The study history is taken as research materials. It contains information about RAKUS "Gaiļezers" endocrinology department patients. The study included patients, who were diagnosed with type 2 diabetes. The patients were divided into two groups: the first included patients with 2 type of diabetes and obesity (BMI>30kg/m²), who used metformin (n=76) and the second group-patients with the second type of diabetes and obesity, who use insulin, but do not use metformin (n=39), as well as the control group with the patients (n=23) without diabetes with normal BMI. The results gained during the research were analysed by the program "SPSS for Windows 22.0". **Results:** Comparing the average capacity of the thyroid volume with the first

and the second groups, it does not differ statistically (p=0,857). In general the results of the experiment correspond to statistics between thyroid volumetris and BMI (rs=0,23; p<0,006). Analysing the data, reliable correlation between thyroid volume and TSH level (p=0,024). Comparing the first group patients' average TSH level with the second group average TSH level, it turns to be slightly lower. **Conclusion:** Analysing the results of the research it was not proved that metformin can reduce thyroid volume. It was possible to prove, that the patient's weight affects the thyroid volume, the correlation between average BMI and average capacity of thyroid volume. Comparing the average TSH value between the groups, it is possible that metformin is able to reduce TSH level, as well as statistically significant correlation between TSH level and thyroid volume. **Acknowledgement:** I would like to express my special thanks of gratitude to my mentor Ilze Konrāde who gave me the golden opportunity to do this wonderful project on the topic "Thyroid volume, metformin and patients' weight", which also helped me in doing a lot of Research and I came to know about so many new things I am really thankful to them. Secondly I would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame.

Keywords: Thyroid volume, metformin, TSH, AMPK, leptin.

45 Heart Rate Variability Measurements in Patients with Autonomic Diabetic Neuropathy.

Authors: Marta Grūbe, Jeļena Prokofjeva, Svetlana Sergejenko.

Mentors: Ilze Konrāde, Irēna Kurcalte.

Affiliation: Rīga Stradiņš university, Medicine.

Introduction: Autonomic diabetic neuropathy (ADN) is one of the latest complications with the worst prognosis and quality of life for patients with diabetes mellitus (DM). In spite of the high risk of cardiovascular mortality among the DM patients, not always it is understood ADN meaning in predicting cardiovascular deaths. Special ADN diagnosis problems cause the DM patients with permanent atrial fibrillation. **Objective:** To update and clarify diagnostics of ADN which is connected with high risk of complications and sudden death. **Methods:** The study histories of 70 patients various ages and sex, with the second type of DM and permanent atrial fibrillation. The data were compared and analysed by not DM cohorts. Characteristics of twenty-four hours heart rate changes (average day and night HR ratio (AveDNHRratio) and difference (AveDNHRdif), maximal and minimal HR ratio (MaxMinHRratio) and difference (deltaHR) were compared between the groups. Statistical analysis: IBM SPSS v. 18. program was used for analysis. **Results:** The HRV results for research included DM patients with permanent atrial fibrillation were lowered compared with the patients without DM. Indicator AveDNHR ratio for patients who had more than 1,14, is associated with more positive forecasts, but if it is lower than 1,14 the survival statistics shows more rapid decline. AveDNHRratio statistically lower (p=0,036) DM patients with diabetic neuropathy compared with the patients without diabetic neuropathy. DM patient's group represents statistically reliable relationship between ventricular ectopic beats (VE) amount day time and Low class 2 VE and risk of death (p<0,001). **Conclusion:** VE amount increasing for DM patients is associated with a high risk of death due to existence of ADN. Ventricular rhythm disorders should be included in the risk assessment for DM patients. Reduced HRV DM patients with daily atrial fibrillation may be associated with cardiovascular autonomic neuropathy. The day/night HRV indicators could be used to predict DM patients survival. 24 h Holter monitoring might be more sensitive method for diagnosing cardiovascular diabetic neuropathy than widely described physiological tests. It's necessary to continue the research to develop ADN diagnostic methods, improved DM patients' risk and care observation. **Acknowledgement:** I would like to express my special thanks of gratitude to my mentors Ilze Konrāde, and Irēna Kurcalte who gave me the golden opportunity to do this wonderful project on the topic (Heart rate variability measurements in patients with autonomic diabetic neuropathy), which also helped me in doing a lot of research and I came to know about so many new things I am really thankful to them. Secondly I would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame.

Keywords: Diabetes mellitus, heart rate variability.

- 46 Prognostic Role of Cardiac Magnetic Resonance in Patients with Severe ST-Elevation Myocardial Infarction: 12-Month Follow-Up.**
Authors: Svetlana Sergejenco, Jeļena Prokofjeva, Marta Grūbe.
Mentors: Ligita Zvaigzne, Oskars Kalējs.
Affiliation: Rīga Stradiņš university, Medicine.

Introduction: Cardiovascular disease is the leading cause of death in Latvia that occurs approximately 55 % of all deaths. Patient rehabilitation after myocardial infarction and secondary prevention can decrease coronary heart disease average at 20-30 %. Nowadays cardiovascular magnetic resonance (CMR) is the technique of choice for assessing fibrosis after myocardial infarction, characterize myocardial tissue, analyze left ventricle function. It provides a robust diagnostic yield in patients after STEMI, identifies myocardial viability, detect malignant ventricular arrhythmia substrate. **Objective:** Cardiovascular disease is the leading cause of death in Latvia that occurs approximately 55 % of all deaths. Patient rehabilitation after myocardial infarction and secondary prevention can decrease coronary heart disease average at 20-30 %. Nowadays cardiovascular magnetic resonance (CMR) is the technique of choice for assessing fibrosis after myocardial infarction, characterize myocardial tissue, analyze left ventricle function. It provides a robust diagnostic yield in patients after STEMI, identifies myocardial viability, detect malignant ventricular arrhythmia substrate. **Methods:** Eighteen patients from Pauls Stradins Clinical University Hospital after STEMI reperfused by primary coronary intervention within 24 hours after symptom onset. CMR was performed in median 8 months after the event. Clinical follow-up was conducted in median after 12 months. **Results:** The results show that the nine patients (50%) had recurrent cardiac hospitalization. Five patients (28%) notes significantly impaired quality of life after acute myocardial infarction. Infarct size measured 15 minutes after gadolinium injection was an average 30 % of left ventricular mass. The left ventricle wall motion changes in 15 patients (83%), aneurysms formed in 9 patients (50%) and average left ventricular ejection fraction was 41%. **Conclusion:** The results show that the infarct size, left ventricle wall motion, aneurysms was the predictors of adverse outcomes in patients after STEMI.

- 47 Genotyping of Patients Undergoing Transcatheter Aortic Valve Implantation; Analysis of Bleeding Complications and Response to Clopidogrel.**
Authors: Sylwia Gajda, Mariusz Tomaniak, Bartłomiej Rymuza.
Mentors: Lukasz Koltowski.
Affiliation: Warsaw Medical University, Medicine.

Introduction: Transcatheter aortic valve implantation (TAVI) is a new method of treating patients with aortic stenosis. This procedure also carries a risk of bleeding and thrombotic complications. Therefore, an optimal platelet reactivity level (PR) should be maintained. There are discrepancies between individuals and their response to clopidogrel, which can predispose to more ischaemic events. There is proven genetic correlation between clopidogrel response. CYP2C19*2 allele carriers have a higher PR which can result in more thrombotic events. **Objective:** The aim of the study was to determine CYP2C19*2 alleles in TAVI patients. To our knowledge it is the first study on this topic in the world. **Methods:** We included 33 patients who underwent TAVI from 14.01.13 to 23.12.13. To test the patients' CYP2C19 allele variants we collected saliva samples with a swab and assessed them with the Spartan device. The study was approved by a bioethics committee. Bleeding complications were assessed using the Valve Academic Research Consortium (VARC) scale. **Results:** The observed population had mean age of 77, 57,6 % patients were male, the mean BMI was 26,8. The mean hospitalization length was 21 days. 8 people had a myocardial infarction in their history, 12 underwent percutaneous coronary intervention (PCI) and 6 had cardiac surgery. The median result in NYHA scale was 2, 9 had systemic atherosclerosis and 4 had TIA or stroke. 1 patient died during TAVI. Overall 5 participants died before discharge. 5 patients were heterozygotes for CYP2C19 allele, the rest were non-carriers. 18 bleedings were noted – one of them resulted in patients' death. 14 patients had major bleeding, 9 had minor. Vascular complications were observed in 11 patients. **Conclusion:** Peri-procedural assessment of PR is beneficial for high-risk individuals undergoing

PCI. TAVI does not have many studies assessing PR. It appears that tailored anti-platelet therapy may be also useful for TAVI patients.

Keywords: TAVI, platelet reactivity, bleeding, genotyping.

PhD RESEARCH PAPERS – CLINICAL

- 48 Winner: Rare Mutations Screening of EGFR, PIK3CA and DDR2 Gene in Chemotherapy Naive Patients with Non-Small-Cell Lung Cancer Metastases to Central Nervous System – Potential Role for Qualification to Molecular Targeted Therapies.**
Authors: Tomasz Powrozek, Marcin Nicóś.
Mentors: Paweł Krawczyk.
Affiliation: Medical University of Lublin, Pneumology, Oncology and Allergology.

Introduction: Presence of predictive genetic factors (mutations and gene rearrangement) allow in some patients with advanced non-small-cell lung cancer (NSCLC) use personalized cancer therapy. In lung cancer patients tyrosine kinase activating mutations in EGFR (Epidermal Growth Factor Receptor) gene are most frequently observed and these mutations are target for therapeutic agents such as Tyrosine Kinase Inhibitors of EGFR (TKI-EGFR). Overexpression of tyrosine kinases is also observed in another rare mutations in EGFR as well as activating mutations in DDR2 (Discodin Domain Receptor-2) gene. Unfortunately in all patients acquired resistance to IKT-EGFR and progression of disease is developed due to presence of secondary mutations in EGFR (T790M) and in genes encoding phosphatidyl kinases (PI3K)-substitution E542K in PIK3CA. **Objective:** Estimation the presence of rare mutations in EGFR gene (T790M, L861Q, G719X and S768I), substitution S768R of DDR2 and E542K of PIK3CA in CNS metastases of NSCLC. **Methods:** 143 paraffin-embedded tissue samples obtained from chemotherapy naive patients with brain metastases of NSCLC were examined using realtime PCR technique with TaqManR probes against examined codons of mutated EGFR and allele-specific PCR with primers specific for mutated and wild-type of DDR2 and PIK3CA genes. **Results:** T790M substitution was detected in 3 patients with poorly differentiated adenocarcinoma and S768R in 2 patients with adenocarcinoma and in one patient with squamous cell carcinoma. Whereas substitution E542K was detected in one female with adenocarcinoma. All positive results were confirmed by Sanger Sequencing. **Conclusion:** Rare mutations in EGFR, DDR2 and PIK3CA can be detectable in NSCLC metastases to CNS and should be examined during treatment planning, because tumor cells with T790M are sensitive for irreversible TKI (Afatinib), and cells with S768R for Dasatinib (BRC/ABL-TKI). The cell cultures bearing PIK3CA mutations are sensitive for dual inhibitors PI3K/mTor: Pi-103 and NVP- BEZ235. Such screening is justified for better selection of patients, whose may benefit from personalized therapy.

Keywords: Non-small-cell lung cancer, mutation screening, molecularly targeted therapy, gene mutation.

- 49 Winner: Polymorphism 140A/G in Lactotransferrin Gene and its Association with Development of Dental Caries and Gingivitis in Children.**
Authors: M. Bartošova, P. Bořilova Linhartova, T. Trefna, J. Vlažný, K. Musilova, M. Kukletova, L. Kukla, L. Izakovičova Holla.
Mentors: Martina Kukletova, Lydie Izakovičova Holla.
Affiliation: Masaryk University, Faculty of Medicine.

Introduction: Dental caries and periodontal diseases are complex, multifactorial diseases and one of the most common illnesses worldwide. Recent evidence suggests a role of LTF in caries and periodontitis. **Objective:** The aim of this study was to determine the frequency of the polymorphism 140A/G in lactotransferrin gene and its association with dental caries and gingivitis in children in Czech population. **Methods:** School children aged 11 – 13 years were included in the study (N = 637). The subjects were divided into two groups: without caries (DMFT = 0) and with caries (DMFT ≥ 1). The caries affected group was stratified as low (DMFT=1), moderate (2-DMFT-3) and high (DMFT=4) caries experien-

ce. The level of gingivitis was rated according to gingival index (GI) and subjects were divided into the groups without (GI = 0) and with (GI ≥ 1) gingivitis. The LTF rs1126478 (140A/G exon 2, Lys/Arg) genotypes were determined by polymerase-chain reaction (PCR) with restriction analysis by *EarI* enzyme. **Results:** Of 637 subjects, 155 (24.3%) were caries free children. There were no statistical significant differences between caries levels and allele or genotype distributions in the total cohort. When the caries affected group (N=482) was stratified as low (DMFT=1), moderate (2-DMFT-3) and high (DMFT=4) caries experience, allele and genotype frequencies were similar among all subgroups. Gingivitis was diagnosed in 53.4% children. The difference in frequencies of alleles and genotypes between the group of healthy children and children with gingivitis was also not significant (p>0.05). **Conclusion:** The polymorphism 140A/G in lactotransferrin gene was not associated with the susceptibility and severity of dental caries and gingivitis in the Czech population. **Acknowledgement:** The study was supported by the grants IGA NT11405-6, GACR 14-37368G, and by the project MUNI/A/0951/2013.

Keywords: Lactotransferrin, polymorphism, dental caries, gingivitis, children.

50 Winner: Human Papillomavirus Vaccine Coverage Among Young Adult Women in Poland.

Authors: Anna Krztoń-Krolewiecka, Jolanta Majchrzak-Krol, Michał Bylewski, Katarzyna Nessler.

Mentors: Adam Windak.

Affiliation: Jagiellonian University Medical College, Department of Family Medicine.

Introduction: Human papillomavirus (HPV) infection is one of the most prevalent sexually transmitted disease in the world. It is estimated that at least 50 % of all sexually active individuals will contract HPV at some point in their lifetime. Persistent infection with high-risk human papillomavirus can cause cancers of the cervix and other genital sites, anus, oral cavity and oropharynx. The HPV vaccination has been recommended for girls and women in the national vaccination program in Poland since 2008. **Objective:** This study was performed to determine HPV vaccine coverage among young adult women and to identify factors and motivations affecting the uptake of HPV vaccination. **Methods:** An anonymous survey was conducted on 115 female students from five universities in Cracow. The questionnaire contained 24 questions. Statistical analyses included descriptive statistics as well as Chi-square tests for subgroup analyses. **Results:** 11% of study respondents were vaccinated against HPV infection. Medical students declared being vaccinated significantly more often than students of the other majors, respectively 24% and 6% (p=0.02). Among non-vaccinated students 39% declared willingness to vaccinate. The most frequent reason for not wanting to vaccinate was the high cost of vaccination (53% of respondents). The next reason reported by 39% of students was having not enough knowledge about the vaccination. Interestingly, almost one out of three of unvaccinated respondents did not hear about the HPV vaccine prior to the survey. For other respondents the main sources of information about the vaccination were the mass media (television, radio, internet). **Conclusion:** The percentage of young adult women vaccinated against HPV is low, while the burden of cervical cancer incidence and the mortality in Poland is very high. In order to increase the percentage of vaccination level in population there is a need to reduce the costs of vaccination and to increase women's awareness by launching HPV-focused educational campaigns.

Keywords: Human papillomavirus, HPV, vaccine, vaccination.

51 Presence of EGFR, KRAS and HER2 Gene Mutations – the Role in Qualification Patients with Central Nervous System Metastases of Nonsmall- Cell Lung Cancer for Molecularly Targeted Therapies.

Authors: Marcin Nicoś, Tomasz Powrozek.

Mentors: Paweł Krawczyk.

Affiliation: Medical University of Lublin, Pneumonology, Oncology and Allergology.

Introduction: Non-small-cell lung cancer (NSCLC) is the first cause of cancer death worldwide. Objective response to chemotherapy and radiotherapy achieved only 20-40% of NSCLC patients. Nowadays, we

have opportunity match agents to proteins' structure that are involved in uncontrolled signaling pathways. Therefore, molecularly targeted therapies offer new possibilities of NSCLC treatment in group of genetically predisposed patients. American Lung Cancer Mutation Consortium had screened NSCLC tumor samples for driver mutations in 10 genes. Mutations were found in 54% (280/516) of completely tested tumors. Unfortunately, there are limited data about mutations presence in metastatic tumors of NSCLC. **Objective:** Aims of the study were estimation the frequency of EGFR, KRAS and HER2 gene mutations and cognizance of molecular background in central nervous system (CNS) metastases of NSCLC. **Methods:** Examined group included 150 patients with CNS metastases of NSCLC. Moreover, in 30 patients material was simultaneously available from primary and metastatic tumors. Mutations were screened in DNA isolated from paraffin embedded tissue samples and estimated by different PCR techniques with molecular probes and fluorescently labeled primers. **Results:** Using PNA-LNA PCR clamp and ASP-PCR methods we detected 9 (6.29 %) common mutations (5 L858R substitution in exon 21 and 4 deletion in exon 19) in EGFR gene in NSCLC CNS metastases. The 23 (15 %) KRAS gene mutations were detected by real-time PCR technique. We also found rare insertion in HER2 gene in single patient that was confirmed in direct sequencing technique. Moreover, 2 mutations in EGFR gene were observed in corresponding primary tumors. **Conclusion:** Preliminary analysis of molecular profile confirmed assumptions that driver mutations can be present both in primary and CNS metastatic tumors of NSCLC. Genes profile analysis in NSCLC patients may extend the scope of molecularly targeted therapies. In the near future, personalization of NSCLC therapy based on assessment of driver mutations in cancer cells may become a reality. **Acknowledgement:** 1. Prof. MD. Paweł Krawczyk - Doctoral dissertation supervisor. 2. Tomasz Powrozek, Iwona Homa - lab mates. 3. Doctors and nurses in Department of Pneumonology, Oncology and Allergology, Medical University of Lublin.

Keywords: Lung cancer, driver mutations, molecularly targeted therapies.

52 The Influence of Type 2 Diabetes on HDL-Cholesterol Profile and its Correlation with Inflammation and Oxidative Stress in Patients with Ischemic Heart Disease – Aims and the Study Protocol.

Authors: Katarzyna Nessler.

Mentors: Adam Windak.

Affiliation: Collegium Medicum, Jagiellonian University, Department of Family Medicine.

Introduction: In recent studies the expression "dysfunctional HDL" appeared, describing the HDL deprived of its atheroprotective and anti-inflammatory roles. What is more, current observational studies have shown that the anti-atherosclerotic effects of normally functioning HDL are frequently impaired in the presence of some clinical situations which are associated with existence of systemic inflammation. **Objective:** The objective of this study is to analyze the HDL-cholesterol subfractions' (apolipoprotein A-I and apolipoprotein A-II) profile and their relationship with inflammation and oxidative stress markers in patients with ischemic heart disease (IHD). **Methods:** The observational analytical case-control study is planned to be performed. 80 patients after verification of inclusion and exclusion criteria will take part in the study. Subjects will be divided into two groups: A). 40 patients with IHD and T2D B). 40 patients with IHD without T2D - control group, which will be matched with the study group according to the age and sex. We plan to gather following data: patient's physical activity, pharmacological therapy and diet, blood pressure, BMI and WHR, inflammation markers: a C-reactive protein, Interleukin-6 and TNF-alpha, glucometabolic control: fasting serum glucose and HbA1c, oxidative stress assessment: 8-iso-Prostaglandin, lipids: total cholesterol, LDL-cholesterol, HDL - cholesterol, triglycerides, apolipoprotein ApoA-I and apolipoprotein ApoA-II, enzymes with influence on HDL: Myeloperoxidase and Paraoxonase-1. **Results:** We expect that our results confirm that there are differences of HDL protein profiles among the patients with IHD and T2D. **Conclusion:** The constant pursuit for a new knowledge about lipids disorders and their influence on prognosis for patients with IHD and T2D determined a need for more specific and adequate lipid diagnostic panel.

Keywords: Dysfunctional HDL, oxidative stress, ischemic heart disease, type 2 diabetes.

- 53 Detection of Microfibrillar Structure of Stenosis in Aortic Valve.**
Authors: Guállová Zuzana, Bilecová-Rabajdová Miroslava, Veliká Beáta, Urban Peter, Tomečková Vladimíra, Komanický Vladimír, Panagiotis Artemiou, Sabol František, Mareková Mária.
Mentors: Mária Mareková.
Affiliation: P. J. Šafárik University, Košice, Department of Medical and Clinical Biochemistry and LABMED a.s.

Introduction: Aortic stenosis in heart valve is associated with the narrowing of the aortic heart valve and remodeling of the extracellular matrix. Emilin-1 is protein of extracellular matrix which is expressed in the endocardium, endothelial cells, smooth muscle cells and adventitial fibroblasts. This protein influences the biosynthesis of transforming growth factor β_1 (TGF- β_1), whose deregulation results in the systemic hypertension accompanied with the structural changes and narrowing of the walls of arteries. **Objectives:** A goal of our study is to detect the pathological changes in a blood of patients with heart valve stenosis using determination of gene expression of Emilin-1 and perform fluorescence analysis together with detection of the molecular structural changes of blood proteins. **Methods:** RNA was isolated from peripheral blood of patients with stenosis of aortic heart valve (10) and the control group of 35 peoples and the reverse transcription from mRNA to cDNA was realized. The gene Emilin-1 and housekeeping gene β -actin (for the standardization) were amplified by real-time PCR. Endogenous fluorescence of the blood serum/plasma samples were analysed by synchronous fluorescence fingerprint on Luminescence Spectrophotometer Perkin-Elmer LS 55. The structure of blood serum/plasma was also analysed by atomic force microscope (ICON, Bruker, USA). **Results:** The significantly increased (about 25.07 ± 0.05 %) expression of Emilin-1 gene at mRNA level and changes in nanostructure of blood was detected in the patients in comparison with healthy subjects. The autofluorescence of proteins was significantly increased in the serum ($p < 0.001$) but significantly decreased ($p < 0.001$) in the plasma and tissue of patients with stenosis of aortic heart valve in comparison with healthy subjects. **Conclusion:** These results can lead to the development of new and more sophisticated methods for detection of cardiovascular diseases. **Acknowledgement:** This study was supported by VEGA 1/0115/14.

Keywords: Aortic stenosis, extracellular matrix.

- 54 Metal Side Effects in Implantology.**
Authors: Píkrilová J., Procházková J.
Mentors: Procházková J.
Affiliation: Charles University, Institute of Clinical and Experimental Stomatology.

Introduction: Human part body substitutes have a long history and they are able to significantly improve the quality of life. But they don't substitute the whole biologic function. Prosthetic implants are made of various materials. The metals have been used from the very beginning, as their mechanical properties are favorable, which cannot be generally said about the biocompatibility. Corrosion, allergy and a biofilm formation are the main reasons of implant rejection or failure. The corrosion is an electrochemical process, which on the one side leads to the material loss and thereby to the decrease of mechanical stability; on the other side it increases the body exposure of metal ions. The most common type of the metallic corrosion are galvanic, fretting, and pitting/crevice corrosion. An excessive electric cell stimulation is caused by this corrosion as well as by the cyclic implant loading. The allergy's a kind of hypersensitivity that causes local or general disorders. Approximately 5 % of implanted patients suffer from the metallic allergy. It's impossible to cure this illness and that's why the primary prevention is so important. The biofilm formation's related with the bacterial adhesion and maturing of the microbial integration system. The biofilm's an infectious focus that often arises the nosocomial way. It can be affected by drugs, chemical or mechanical surface treatment. There are also the intelligent implants. **Objective:** The summary: the risk of using metals in implantology-healing process, rejection related to corrosion, allergies and biofilm. Alternative materials. **Methods:** The information sources are medicine publications on pubmed.com and related Czech and

foreign articles. **Results:** The alternative of using metal implants are ceramic materials based on zirconium, as well bioglass and biocomposites. **Conclusion:** The metals may be a risk factor for implantation. It is necessary to minimize the occurrence of predictable problems through medical examinations and pursue the development of new materials. **Acknowledgement:** This study was supported by IGA MZ ČR č. NT 13087-3 grant.

Keywords: Implant Healing, rejection, galvanic corrosion, MELISA, biofilm, biocomposite, bioglass.

- 55 Squamous Cervical Cancer is Manifested by Higher Frequency of LDHA Immunoreexpression.**
Authors: Iwona Bronisz, Natalia Frączek, Marlena Kaczmarczyk, Agnieszka Korga, Magdalena Iwan, Jarosław Dudka.
Mentors: Jarosław Dudka.
Affiliation: Medical University of Lublin, Independent Medical Biology Unit.

Introduction: Most cancer cells exhibit changes in their metabolism. The most common change is glycolysis activation results in significantly higher amounts of glucose uptake (approximately one order of magnitude more) by malignant tumors. Moreover, lactate dehydrogenase (LDHA) catalyses the conversion of pyruvate, the end product of glycolysis, to lactate which results in cancer tissue acidosis. The consequence of this changes may be more aggressive phenotype, associated with therapeutic implication. Interestingly, these changes may occur in both hypoxia (fermentation) and normoxia (Warburg effect) conditions. **Objective:** The aim of this study was to assess the glycolytic phenotype in cervical cancer based on immunoreactivity of LDHA. **Methods:** It was assessed squamous cervical cancer samples from 57 patients obtained after hysterectomy with appendages, surged in 1997-2001. Immunohistochemical examination was performed independently by two qualified pathologist. The control group consisted of 10 samples of normal tissue derived from the operating margin of the cervix. In order to assess the level of lactate dehydrogenase, immunohistochemical study was performed by using rabbit monoclonal antibody against this protein. **Results:** It was observed an increase of the level of lactate dehydrogenase in cancer samples in comparison to the control group. In the study group a positive reaction of LDH occurred in 50 patients what constitute 87,72% of the samples. Positive staining for LDH was observed only in 20% of control group samples. **Conclusion:** The increase of the frequency and amount of LDHA protein in the study may suggest glycolysis activation as a result of hypoxia or Warburg's effect in cancer cells. Glycolysis is a primary way of gaining energy for tumors cells, that is why inhibition of this process can be useful in anticancer treatment. **Acknowledgement:** I thank our project guide professor Jarosław Dudka, for his guidance and his suggestions during this project work.

Keywords: Immunohistochemistry, lactate dehydrogenase, cervical cancer.

- 56 The Squamous Cervical Cancer May Exhibit High Immunoreexpression of Hypoxia-Inducible Factor-1 Alpha and Vascular Endothelial Growth Factor.**
Authors: Natalia Frączek, Iwona Bronisz, Marlena Kaczmarczyk, Agnieszka Korga, Magdalena Iwan, Jarosław Dudka.
Mentors: Jarosław Dudka.
Affiliation: Medical University of Lublin, Independent Medical Biology Unit.

Introduction: Tumor cancer are characterized by excessive proliferation causing fast growth progression. The faster cells proliferation the higher demand for nutrients, supported by blood. Architecture of tumor blood vessels, their formation, regression and the continuous transformation (remodeling) are the main reasons of the variable blood flow. Variable blood flow causes the appearance of hypoxia. The deficit of oxygen in cancer cells triggers adaptively secretion of HIF-1 α – a key transcriptional hypoxia inducible factor that can activate angiogenesis and metabolic reprogramming. HIF-1 α plays an important role in regulation

of the expression of many genes encoding angiogenic growth factors e.g. vascular endothelial growth factor (VEGF). **Objective:** The aim of this study was to assess the hypoxia and angiogenesis in squamous cervical cancer based on immunoreactivity of HIF-1 α and VEGF, respectively. **Methods:** The squamous cervical cancer samples from 57 patients obtained after hysterectomy with appendages. Immunohistochemical examination was performed independently by two qualified pathologist. The control group consisted of 10 samples of normal tissue derived from the operating margin of the cervix. In order to assess the level of proteins: hypoxia inducible factor-1 and vascular endothelial growth factor, immunohistochemical study was performed by using mouse monoclonal antibodies against these two proteins. **Results:** The study revealed clear increase of amount of protein HIF-1 α and VEGF in the tested cancer samples comparing to the control group. In the study group a positive reaction of HIF-1 α occurred in 82.46% of the samples, while the expression of VEGF was observed in 37 patients, representing 64.91% of the examined tissues. There were no positive staining for HIF-1 α and VEGF observed in any of control group samples. **Conclusion:** The study shows coexistence of increase amount of protein HIF-1 α and VEGF in cervical cancer cells, that may suggesting the activation of angiogenesis induced by hypoxia. **Acknowledgement:** I thank our project guide professor Jaroslav Dudka, for his guidance and his suggestions during this project work.

Keywords: Immunohistochemistry, hypoxia inducible factor-1 α , vascular endothelial growth factor, cervical cancer.

57 **Outlining Consciousness: Diagnosing Minimally Conscious State in Patients with Chronic Disorders of Consciousness.**

Authors: Alena Škutchanova.

Mentors: Beata Saniova.

Affiliation: Comenius University, Jesseniu Faculty of Medicine.

Introduction: Although established in 2002, Minimally Conscious State (MCS) is unknown among clinicians in Slovakia and Czech Republic. Patients exhibiting intermittent reproducible behavior in answer to environmental stimuli are usually misdiagnosed with obsolete terms. Established diagnose may determine treatment, outcome and also approach of healthcare staff and surrogates. Often Misdiagnose may stigmatize patient in dynamic process of regaining consciousness. **Objective:** By simple bedside evaluation, show manifestation of consciousness in patints with disorders of consciousness using up-to-date terms. **Methods:** In our study, we evaluated patients, diagnosed as apalic, coma vigile or semicomma in the time of our reevaluation. We visited 6 patients in OULN Moravsky Beroun (Intensive nursing care unit, stroke unit) once and three patients with acquired several traumatic brain injury in University Hospital Martin (UNM) repeatedly. By simple bedside evaluation, we were investigating signs of conscious, reproducible manners like gaze fixation and following, command following, object reaching, conversation comprehension, speech or using gestures and reaction of patient on his/her own face in mirror. **Results:** From observed patients, four of six patients in OULN Moravsky Beroun were diagnosed to suffer more severe disorder of consciousness as they actually were, all three patients in UNM were misdiagnosed, one of them displayed conscious, although confused behavior. **Conclusion:** Patients with disorders of consciousness or bordering states are often misdiagnosed suffering more severe disorder. Confusion among clinicians does not come only from intermittent and varying nature of patient's behavior, but also chaotic and often obsolete nomenclature. For right treatment, right diagnosis is essential. Recognizing early signs of consciousness also improve contact and satisfaction both for medical staff and patient's near ones. **Acknowledgement:** MUDr. Jana Ferancova, director of OULN Moravsky Beroun, staff of OULN Moravsky Beroun; Patients and their near ones.

Keywords: Disorders of consciousness, minimally conscious state, evaluation, diagnosis, bedside.

58 **Efficiency of Sinus Rhythm Maintaining and Antithrombotic Therapy for Patients with Atrial Fibrillation After Electrical Cardioversion.**

Authors: Ilze Vinkalna, Dita Pilate, Irina Pupkevica, Evija Gutmane, Annija Bumane.

Mentors: Oskars Kalejs.

Affiliation: Riga Stradins University, Internal Medicine.

Introduction: Atrial fibrillation (AF) is an arrhythmia related to increased risk of thrombembolic events and with frequent recurrences. **Objective:** To evaluate the effectiveness of sinus rhythm maintenance therapy and recurrence of clinical episodes in patients after electrical cardioversion (ECV) according to CHA2DS2-VASc scale, and pharmacotherapeutical methods used, including anticoagulants. **Methods:** Review of 256 prospective and 229 retrospective patients with AF, who had an ECV in 2013 in Latvian Cardiology center. Data acquired from medical archive, interviews and control telephone queries during six month period, were statistically processed using IBM SPSS Statistics 20. **Results:** 33% of patients had recurrent events. 1 month after ECV, acute coronary syndrome(ACS) was presented in 0,9%, CHF decompensation - 0,4%, pulmonary embolism (PE)/deep vein thrombosis(DVT) - 0,4%; during three months: ACS - 0,5%, HCF decompensation- 0,5%, PE/DVT - 0,5%; during six months: ACS - 0,7%, HCF decompensation - 2%, PE/DVT - 0,7%, CI - 1,4%. Ic and III class antiarrhythmics were prescribed in 83% of cases. Recurrences were less frequent using amiodarone (33%; p=0,002), than propafenone (64%; p=0,041) and ethacizine (83%; p=0,017). In groups using statins (27% vs. 39%; p=0,044), aldosterone antagonists (12% vs. 35%; p=0,036) and diuretics (15% vs. 41%; p=0,014) recurrences were less present. The mean points by CHA2DS2-VASc scale were 3,8. The occurrence of bleeding depending on control periods was from 5% (p=0,013) to 7% (p=0,067); for acetylsalicylic acid from 3,13% (p=0,119) to 3,31% (p=0,067). The occurrence of bleeding during first month was 1% for dabigatran and 7% for rivaroxaban (p=0,016).

Conclusion: Recurrent AF occurs in every third patient after ECV. Use of statins, diuretics and aldosterone antagonists decreases number of AF recurrences. Amiodarone statistically significantly prevent more from recurrent AF than propafenone and ethacizine. Most often bleeding occurred in patients using warfarin during the first month after ECV. Using novel oral anticoagulants before and after ECV is more safer than warfarin in first month and long period. **Acknowledgement:** We would like to thank to associate professor, cardiologist Oskars Kalejs for guiding this research. This research is approved by ethics committee of Riga Stradins University and ethics committee of Pauls Stradins Clinical University Hospital.

Keywords: Atrial fibrillation, pharmacotherapy, electrocardioversion.

59 **Usefulness of Liquid Chromatography/Mass Spectrometry (LC/MS) in Placental Renin-Angiotensin System Assessment.**

Authors: Dominika Stettner, Krzysztof Rytlewski, Agnieszka Wrobel, Magdalena Wawrzynkiewicz.

Mentors: Krzysztof Rytlewski, Rafał Olszanecki.

Affiliation: Jagiellonian University, Collegium Medicum, Medical, Department of Gynecology and Obstetrics.

Introduction: During pregnancy, a number of RAS components are overexpressed. The local renin-angiotensin system(RAS)plays a very important role in placental development. In studies carried out over the last decade, there were suggestions that a recently described heptapeptide- angiotensin-(1-7)-may play an important role in the regulation of arterial blood pressure during pregnancy. It is probable that changes in Ang-(1-7) levels, and particularly in the Ang-(1-7)/Ang II ratio, play a significant role in the pathogenesis of pre-eclampsia. **Objective:** To examine metabolism of angiotensin I, as a precursor to subsequent angiotensins in ex vivo model and to expand current knowledge for the pathogenesis of preeclampsia. **Methods:** Sections of placentas coming from patients in normal pregnancy, without any concomitant chronic diseases, scheduled for elective caesarean sections were used. Tissues for examination were collected immediately after the cae-

sarean sections, washed with a refrigerated 0.9 % NaCl solution, closed in a sterile container and transported to the Chair of Pharmacology, where assays (liquid chromatography/mass spectrometry, innovative for angiotensins' metabolism assessment in human placenta) were performed. **Results:** The sections of placentas exhibited an ability to convert Ang I to other metabolites. In the analysed samples, the presence of all the assayed metabolites of angiotensin I was shown. Ex vivo, the main product of Ang I degradation turned out to be angiotensin-(1-7), which is consistent with other reports. The next two main Ang I metabolites were Ang II and Ang-(1-5). The remaining assayed metabolites – Ang-(19), Ang III and Ang IV – were produced in much lower quantities. **Conclusion:** The main product of Ang I degradation in placental tissue originating from a normal pregnancy is Ang-(1-7). The placenta also exhibits the ability to form other examined metabolites of Ang I, though they are produced in much smaller amounts. Further investigations with placentas from pregnancies complicated by preeclampsia are conducted. **Acknowledgement:** Chair of Pharmacology, Jagiellonian University CM.

Keywords: Renin-angiotensin system, pregnancy, placenta, LC/MS, preeclampsia, Angiotensin-I, Angiotensin-(1-7).

60 Mutation and Polymorphisms in the Protoporphyrinogen Oxidase Gene in Jewish Family with Porphyria Variegata.

Authors: Medek K, Mamet R, Kučerova J, Puchmajerova A, Martasek P, Schoenfeld N.

Mentors: Pavel Martasek.

Affiliation: Charles University in Prague, Department of Pediatrics and Adolescent Medicine 1st Faculty of Medicine, Charles University and General University Hospital.

Introduction: Porphyria variegata is characterized by a deficiency in the activity of the enzyme protoporphyrinogen oxidase. Affected individuals show increased cutaneous photosensitivity that may occur alone or in combination with acute neurovisceral symptoms such as abdominal pain, hypertension and hemiplegia. PV is inherited as an autosomal dominant disease with low penetrance. In heterozygote patients, PPOX activity is decreased by approximately 50 % and symptoms do not usually appear before puberty. For diagnosis of PV, plasma fluorescence emission spectroscopy is a first-line test because a peak at 624-626 nm (excitation by 400 nm) establishes the diagnosis of PV. **Objective:** Aim of this study is to find disease causing mutation in a family of Jewish Moroccan origin. **Methods:** SUBJECTS: Proband diagnosed with PV (clinically, biochemically) and four family members from family of Jewish Moroccan origin from Israel were screened for the presence of the mutation within PPOX gene. GENOTYPING: Genomic DNA of the patient and family members was extracted from whole blood. All 13 PPOX exons and adjacent intron regions were amplified by PCR. PCR products were purified and sequenced by capillary electrophoresis. **Results:** In proband's gene encoding protoporphyrinogen oxidase, mutation c.1083delT in exon 10 was found. One silent carrier of this mutation was revealed by genetic analysis of other family members. Mutation was detected in heteroallelic form and it is responsible for porphyria variegata. **Conclusion:** In this study, sequencing analysis revealed mutation in new family of Jewish Moroccan origin within exon 10 in PPO gene (frameshift mutation, c1083delT). The PV diagnosis was previously determined by clinical symptomatology and biochemical analyses. The identified mutation is a single nucleotide deletion, previously described (Frank and Christiano, 1997). Genetic analysis of 4 family members revealed one silent carrier of causal mutation in the PPOX gene. **Acknowledgement:** Supported by grants from Charles University in Prague, Czech Republic, GAUK, 252213, PRVOUK P24/LF1/3 and UNCE 204011/12.

Keywords: Porphyria variegata, PPOX, plasma fluorescence emission spectroscopy, frameshift mutation, genetic analysis.

PhD RESEARCH PAPERS – THEORETICAL

61 Winner: The Effects of α -Lipoic Acid on Brain Oxidative Stress Parameters in Mice with Methionine and Choline Deficiency.

Authors: Milena Vesković, Dusan Mladenović, Bojan Jorgacević, Ivana Stevanović, Silvio de Luka, Tatjana Radosavljević.

Affiliation: Faculty of Medicine, University of Belgrade, Department for Pathophysiology.

Introduction: Deficiency in methionine or choline may be caused by various disturbances, including insufficient intake, malabsorption syndrome, alcoholism and liver diseases, and can promote oxidative stress in different organs such as liver, kidney, heart and brain. **Objective:** The aim of present study was to examine the effects of alpha-lipoic acid (LA) on oxidative stress induced by methionine and choline deficient (MCD) diet in various brain structures. **Methods:** Male C57BL/6 mice were divided into 3 groups (n=7 per group): 1. control - continuously fed with standard chow; 2. MCD - fed with MCD diet for two weeks and 3. MCD+LA - fed with MCD diet and simultaneously treated with LA (100 mg/kg/day i.p.) for two weeks. Four brain structures (cortex, hypothalamus, striatum and hippocampus) were collected for determination of oxidative stress parameters. **Results:** Malondialdehyde (MDA) and nitrites+nitrates concentration in all brain regions was significantly increased by MCD diet vs. control (p<0.01), while LA reduced their content to normal values. Besides, in MCD group, activity of total superoxide dismutase (SOD), and its isoenzymes MnSOD and Cu/ZnSOD was reduced, whereas LA treatment significantly improved their activities in all brain structures when compared to MCD group (p<0.01). Additionally, MCD diet induced a significant decrease in catalase activity in cortex and glutathione (GSH) content in hypothalamus, but not in other brain structures. However, catalase activity in cortex and striatum, and GSH content in hypothalamus were significantly improved by LA treatment vs. MCD group. **Conclusion:** LA reduces oxidative and nitrosative injury induced by methionine and choline deficiency by restoring SOD activity in all brain regions, and by improvement of catalase activity in cortex and GSH content in hypothalamus. LA supplementation may be used in order to prevent brain oxidative and nitrosative injury induced by deficit in these essential amino acids. **Acknowledgement:** This research was financially supported by the Ministry of Education, Science and Technological Development of Republic of Serbia, Grant no. 175015.

Keywords: MCD diet, oxidative stress, nitrosative stress, lipoic acid, brain.

62 Winner: Determination of 4-hydroxy-2-nonenal in Various Biological Materials by High Performance Liquid Chromatography.

Authors: Miroslava Hlavacova.

Mentors: Hana Paulova.

Affiliation: Masaryk University, Faculty of Medicine, Department of Biochemistry.

Introduction: One part of oxidative stress is represented by lipid peroxidation. During this process phospholipids' membrane is attacked by free radicals, what leads to formation of secondary products, from which 4-hydroxy-2-nonenal (4-HNE) is the most abundant and explored. It derives from the most represented class of polyunsaturated fatty acids and is potentially able to undergo a number of reactions with proteins and nucleic acids. It is known, that 4-HNE doesn't serve only as a biomarker of lipid peroxidation, but also plays a biological role in cell signalling under physiological as well as pathological conditions, mainly in cell cycle regulation and gene expression. For this reason 4-HNE might be causally involved in the pathogenesis of number of inflammatory and degenerative diseases. **Objective:** To develop and optimize the method for analysis of 4-HNE in various biological materials. **Methods:** The method is based on derivatization of 4-HNE with dinitrophenylhydrazine, followed by extraction to hexane. The level of 4-HNE is determined by reverse phase HPLC with UV detection. **Results:** This method was successfully tested on human and animal plasma and

perfusion solution from isolated animal hearts. Another biological materials such as tissue homogenates and urine will follow. **Conclusion:** We optimized the determination of 4-hydroxy-2-nonenal by HPLC for several biological materials. Method is ready to be used in follow-up clinical studies. **Acknowledgement:** This work was supported by MUNI/A/0954/2013.

Keywords: Lipid peroxidation, 4-hydroxy-2-nonenal, HPLC.

63 Winner: Effect of Temozolomide and Biologically Active Phospholipids on Human Glioblastoma Cells in Vitro.

Authors: Eva Blahovcova, Henrieta Škovierova, Radovan Murin, Dušan Dobrota, Jozef Hatok.

Mentors: Jozef Hatok, Henrieta Škovierova, Radovan Murin, Dušan Dobrota.

Affiliation: Comenius University in Bratislava, Jessenius Faculty of Medicine in Martin, Department of Medical Biochemistry.

Introduction: Glioblastoma multiforme is biologically the most aggressive primary brain tumor in adults. Standard treatment consists of surgical resection, radiotherapy and chemotherapy with temozolomide. Resistance to chemotherapy is a major obstacle to successful treatment. Biologically active phospholipids derivatives has adjunctive beneficial effects in inhibition of tumor growth, but mechanism of their influence is still unknown. **Objective:** The aim of our work was to study response of human glioblastoma cells to combined treatment with biologically active phospholipids and cytostatic temozolomide in vitro. **Methods:** Viability of human glioblastoma cell line (T98G) was assayed biochemically by cytotoxic methyl-thiazol tetrazolium assay (MTT), cytologically by cellular nuclei staining with DAPI and by histological staining with May-Grunwald/Giemsa-Romanowski. **Results:** Results of our study confirm that human glioblastoma cells are sensitive to temozolomide in treatment level doses in vitro. Cultivation of glioblastoma cells with active form of biologically active phospholipids induces cell death while cultivation with inactive form of biologically active phospholipids or without biologically active phospholipids has no inhibition effect on cells growth. Combination of pre-culturing with active form of biologically active phospholipids and following treatment with temozolomide leads to higher effectiveness of cytostatic even at the lowest tested dose and to inhibition of glioblastoma cells growth in vitro. **Conclusion:** Biologically active phospholipids increase effectiveness of temozolomide on human glioblastoma cells in vitro. **Acknowledgement:** This work was supported by APVV-0224-12, CEVYPET – Center of excellence for research in personalized therapy (code: 26220120053) and company AREKO, spol. s r.o. Praha 4, CZ.

Keywords: Glioblastoma multiforme, temozolomide, biologically active phospholipids.

64 Histological Changes in the Salivary Glands of Man-Made Microelementosis.

Authors: Boiko VA.

Mentors: Sikora VZ.

Affiliation: Sumy State University, Medical Institute, Human Anatomy.

Introduction: Currently, the major pollutants are heavy materials that exceed permissible levels in many regions of Ukraine and worldwide. **Objective:** Determine on the micro-structural level regularities organization structures of the salivary glands under the action of certain combinations of salts of heavy metals in animals. **Methods:** Experiment was conducted on 48 white male rats 6 months of age. Animals were divided into two series: control and experimental. In a series of experimental rats consumed drinking water with heavy metal salts in a concentration of zinc (ZnCl₂)-mg/l, copper (CuSO₄·5H₂O)-5mg/l, iron (FeSO₄)-10mg/l, Lead (Pb(NO₃)₂)-3 mg/l and manganese (MnCl₂·4H₂O)-1mg/l. The animals were removed from the experiment on 1, 7, 14, 21 days by decapitation under ether anesthesia. Similarly, the animals were removed of the con-

trol series that received drinking water limits of daily physiological needs. For histological examination were taken submandibular salivary glands and were fixed for 24 hours. Posting and manufacture of paraffin blocks were performed by the standard technique. Evaluated the structure of sericite, mucosal, kernel, nucleolus, cytoplasm and secretory granules, condition microvasculature and other stroma and parenchyma education. **Results:** On the 1, 7 day of study observed polymorphism particles. On the background of marked interstitial edema showed signs of atrophy of the elements of the parenchyma, which manifested reduction in size of the acini. On study day 14-hemocapillars expanded, they have shown venous congestion, edema of the perivascular stroma, wall thickening. An increasing number of coarse fiber stroma and degenerative structures in the parenchyma of the gland. On day 21 of the study, the animals of the experimental series fabric submandibular gland has violations of the microcirculatory bed, decrease morphofunctional activity organ. **Conclusion:** Thus, in all groups of experimental series observed a direct correlation between the length and depth of the changes of structural adjustment submandibular gland on the background of microcirculatory disorders. **Acknowledgement:** I express my deep gratitude to my supervisor prof. Sikora VZ. In addition, I wish to express my deep appreciation to the Department of Pathological Anatomy for assistance in preparing histological specimens.

Keywords: Salivary gland, salts of heavy metals, microelementosis, histology.

65 Oxygen Free Radical Scavenging Abilities of Selected Ferrocenyl Derivatives.

Authors: Žatko, D., Džurínova, R., Vaškova, J., Mojžišova, G., Vaško, L.

Mentors: Vaškova, J., Vaško, L.

Affiliation: University of Pavol Jozef Šafárik in Košice, Dpt. Medical and Clinical Biochemistry.

Introduction: Ferrocenes are unnatural organometallic compounds containing Fe²⁺ ion complexed by two Cp- rings forming a sandwich complex with aromatic and interesting redox properties due to facile oxidation of Fe²⁺ ion releasing one electron. Chalcones are natural compounds with well defined core structure of 1,3-diaryl-propenone, creating a long delocalised π-system. Thus, chalcones with a ferrocenyl moiety at the 3-position have a structure with potential antioxidant properties. **Objective:** The aim was to evaluate the ability of four ferrocenyl chalcones (1-4) and one nonchalcone ferrocenyl derivative (5), to scavenge superoxide (O₂⁻) and hydroxyl radicals (·OH). **Methods:** Tested compounds were obtained from prof. P. Perjesi (University of Pecs, Hungary). Their ·OH and O₂⁻ scavenging activities were determined at the concentration of samples 10⁻⁴ mol.dm⁻³ and 10⁻⁵ mol.dm⁻³. For determination of the ·OH scavenging activity the 2-deoxy-D-ribose method was used and the ·OH was generated by a Fenton system (1). For determination of the O₂⁻ scavenging activity the pyrogallol autooxidation method was used (2). **Results:** All compounds showed some ·OH scavenging activities, except compound 1 at higher concentration, showing little enhancement in ·OH content (1.7%). In general, better scavenging activities were achieved at lower concentration, except 2, ranging from 11 to 16% (1,3 and 5). All compounds, instead of scavenge (except 1 and 2) showed tendency to slightly elevate O₂⁻ levels. An increase in O₂⁻ content was observed at lower concentration used (except 4) with the highest increase under compound 3 (5.2%). **Conclusion:** The investigated ferrocenyl derivatives exhibited only a slight scavenging activity towards ·OH, whilst O₂⁻ levels were in general increased. Indeed, very interesting is the finding that compounds potentiate the O₂⁻ formation, in particular compound 3, which after completing findings of other effects can be used for targeted induction of oxidative stress, for example, in cancer cells. **Acknowledgement:** This study was supported by VEGA grant 1/1236/12 and 1/0751/12.

Keywords: Ferrocene, chalcone, superoxide radical, hydroxyl radical.

- 66 Study of the Antiradical Properties of Agrimony Dry Extract.**
Authors: Fejerčakova, A., Vaškova, J., Krempaska, K., Vaško, L.
Mentors: Jozef Safarik.
Affiliation: Faculty of Medicine, Dept. of Chemistry and Clinical Biochemistry.

Introduction: According recent studies, agrimony (*Agrimonia eupatoria*, L) may have antioxidant potential, which is mainly associated with high polyphenolic content. Polyphenols are able to react with harmful reactive nitrogen and oxygen species (RNOS) and thus reduce their production. Flavonoids as a group of polyphenols undergo reactions with RNOS in which flavonoids are oxidized, resulting in a more stable less reactive radicals (Nijveldt, 2001). **Objective:** We focused our work on the evaluation of the ability of different concentrations (0.05%, 0.1% and 0.2%) of agrimony dry extract to scavenge superoxide, hydroxyl radicals, nitric oxide and peroxynitrite anions. **Methods:** Dry extract of agrimony leaves was obtained from CALENDULA, a.s (Nova Lubovna) and evaluated for antioxidant properties using various in vitro assay systems. Hydroxyl radical scavenging activity was measured by means of deoxyribose assay, superoxide radical was determined by pyrogallol autooxidation method. Nitric oxide was detected indirectly by using spectrophotometry and that of peroxynitrite according to Beckman et al. (1994). **Results:** Agrimony extract showed moderate effect against superoxide radicals, with maximum inhibition percentage 10% when used the lowest concentration. We observed concentration dependent (0.05%, 0.1%, 0.2%) hydroxyl scavenging activity (15%, 20%, 40%). Agrimony extract showed very low effect against nitric oxide and peroxynitrite. We observed maximum inhibitory activity when used concentration 0.1%. **Conclusion:** Antioxidant activity of agrimony varied in concentration depending manner. The observed activities of the extract against reactive species were weak, not reaching more than 10 %, however relatively high scavenge activity (40%) of hydroxyl radicals may be responsible for well known antiinflammatory effect of agrimony in folk medicine. **Acknowledgement:** Study was financially supported by grants VEGA 1/1236/12 and 18/GSD/2012.

Keywords: Agrimony, reactive oxygen and nitrogen species, in vitro.

- 67 Activity of Organometallic Compounds Towards the Reactive Nitrogen Species.**
Authors: R. Džurinova, D. Žatko, G. Mojžišova, L. Vaško, J. Vaškova.
Mentors: J. Vaškova.
Affiliation: University of Pavol Jozef Šafarik in Košice, Department of Medical and Clinical Biochemistry.

Introduction: Free radicals are highly unstable and reactive substances which play both positive (e.g. participation in apoptosis of damage and cancer cells, microorganisms destruction) and negative roles (damage of DNA, proteins and lipids) in organism. Ferrocenes belong to organometallic compounds of bis(cyclopentadienyl) with Fe in their sandwich structure so they can act as a one electron donor undergoing oxidation or as a source of reactive oxygen species that have a direct or indirect influence on or even increase their biological activity. **Objective:** The aim was to determine efficiency of selected ferrocenyl compounds towards the nitrogen oxide (NO) oxidation product, nitrite and peroxynitrite anion (ONO₂⁻). **Methods:** Ferrocenyl compounds were kindly obtained from prof. P. Perjesi (University of Pecs, Hungary). The ability to convert NO to nitrites (in aqueous phase, free of biological material, NO exclusively autooxidizes to nitrite) was estimated indirectly using Griess reaction according to Beda and Nedospasov (2005) and that of ONO₂⁻ scavenging according to Beckman et al. (1990). Measurements were provided in triplicate with concentration of samples 1.10⁻⁵ and 1.10⁻⁴ mol.dm⁻³. **Results:** Selected compounds showed low efficiency of NO conversion to nitrites ranging from 8.85% (Q813) to 23.99% (Q616/1) at lower concentration of samples but much higher activity, approaching 60 % (Q815 and Q820) with higher concentration used. In contrast, ability to scavenge ONO₂⁻ was generally low, even below 7.3% (Q815). Compounds Q813 and Q820 caused even its increase when used in lower concentration. Almost the same effect had the substances Q815 and Q 813 at

a lower concentration. **Conclusion:** Observed high ability of titled compounds to convert NO to nitrites but also very low power of NO transformation, together with low ONO₂⁻ uptake capability predispose especially Q813 and Q820, to influence diverse chemical reactions, including nitrosylation reactions in biological system, and negative consequences from nitrosative stress condition. **Acknowledgement:** This study was supported by VEGA grant 1/1236/12 and 1/0751/12.

Keywords: Ferrocene derivatives, nitric oxide, peroxynitrite.

- 68 The Dynamics of Biofilm Formation in Clinical Strains of *Staphylococcus Epidermidis* and *Staphylococcus Haemolyticus* associated with Nosocomial Infections in Very Low Birth Weight Neonates.**
Authors: Monika Grzebyk, Anna Piotrowska, Monika Brzychczy-Włoch, Piotr B. Heczko.
Mentors: Piotr B. Heczko.
Affiliation: Jagiellonian University Medical College, Chair of Microbiology.

Introduction: *Staphylococcus epidermidis* and *Staphylococcus haemolyticus* are the major causes of device-related infections in Neonatal Intensive Care Units. The main virulence factor in *S. epidermidis* is biofilm formation and according to some studies *S. Haemolyticus* also form biofilm, but this process isn't well known in this species. Biofilm formation is usually tested in 24- or 48-hour cultures, but the dynamics and the early stages of biofilm formation are still unclear. **Objective:** The aim of study was to test and compare the quantity of biofilm formed in different stages of this process in clinical strains. **Methods:** Overnight cultures in Tryptic Soy Broth (TSB) were diluted 1:100 in fresh TSB and 1ml of each inoculum was placed in sterile 24-well plates and incubated in 37 °C. The wells were empty or with round thin glass. After 2 h, 6 h, 12 h, 24 h or 48 h of incubation the contents of each well were aspirated and washed three times with 200 µl of phosphate-buffered saline (PBS). Adherent cells were fixed, dried and stained with crystal violet. Excess stain was rinsed off with water. After the adherent cells were dried, 1 ml of 96 % ethanol was added and the optical density (OD) of the stained biofilms was measured at wavelength of 600 nm. The measurement was repeated two times and averaged. Fresh uninoculated TSB treated with the same procedure as test samples was used as negative control. Strong biofilm producing *Staphylococcus epidermidis* control strain RP62A was used as positive control. This study was supported by K/DSC/001393 grant. The study covers 10 clinical strains of each *S. epidermidis* and *S. haemolyticus*. **Results:** At the present day six of *S. epidermidis* and two of *S. haemolyticus* have been analyzed. Exact results will be presented during the conference. **Conclusion:** Significant differences have been observed in quantity of biofilm formed by tested strains. **Acknowledgement:** This study was supported by K/DSC/001393 grant.

Keywords: Biofilm, staphylococcus, neonatal infections.

Abstracts of the 32nd National Medical Students' Conference, Spain, CNEM 2014

01 Clinical and Etiologic Study of Mycetoma on the Northeast of Mexico. Serie of 412 Cases.

Authors: Irali Velazco María Santos.

Mentors: Víctor Fernando Muñoz Estrada.

Affiliation: Dermatology and Mycology Department in the Center for Research and Education in Health Sciences Autonomous University of Sinaloa, Culiacan, Sinaloa, Mexico.

Introduction: The mycetoma is a subcutaneous, and chronic granulomatous infection, affecting from skin to bone and adjacent organs. In 1842 it was described the first case in India by Dr. John Gill, in Mexico the first case was described in 1912 by Cicero. His injuries are characterized by increased volume or swelling with anatomical deformity, fistula formation and drain beans and stringy seropurulent materials, may be of fungal origin defined as eumycetomas or actinomycetes, calling them actinomycetomas. Mycetoma is a common disease in tropical and subtropical climates. In Latin America, Mexico is the country with the highest number of cases, positioning the Mycetoma as the most common fungal infection. The diagnostic is made by clinical features, the presence of grains in secretions by culture and identification of the etiologic agent. The treatment of mycetoma depends on the etiologic origin; if actinomycetomas the treatment of choice is the combination of dapsone or DDS and trimethoprim-sulfamethoxazole, in cases of resistance was chosen by the combination of imipenem and amikacin. In the case of eumycetoma, the pharmacological treatment is long, combined with surgical excision of the lesions. **Objective:** Identify the clinical characteristics of Mycetoma and his causative agents in the state of Sinaloa, Northeast of México. **Methods:** An observational, retrospective, cross-sectional descriptive study was conducted in patients with a diagnosis of mycetoma in which positive mycological culture was obtained, the information was obtained from the records of the Department of Dermatology and Mycology Research Center and Education in Health Sciences (C.I.D.O.C.S), Faculty of Medicine, Autonomous University of Sinaloa, Mexico, from March 1993 to March 2013, we used descriptive statistics with rate calculation and measures of central tendency. **Results:** Of the 412 cases recorded during that time, males are more often affected with 74.03%, 23.3% were in the group of 30-39 years of age; the 24.51% originate in Culiacan, Sinaloa, Mexico and identified that patients are mostly farmers with 27.91%. Topographically the 72.57% corresponded to the lower extremities and in terms of size are injuries between 51-100 cm² in 27.67% of cases. The evolution was 1 to less than 5 years in 44.90% of cases. Was identified as the causative agent in the mycological culture to *Nocardia brasiliensis* in 66.99% of cases. **Conclusion:** We identified 412 cases of mycetoma in the state of Sinaloa, Mexico Northwest, mostly male patients in the fourth decade of life, dedicated to activities related to the field, the most frequent location of the lesions was in lower extremities, with an extension between 51-100 cm² caused by *Nocardia brasiliensis* mostly with a mean time interval between 1 to less than 5 years.

Keywords: Mycetoma.

02 Embryonic Development of the Fornix in Mice.

Authors: Moisés Espinosa Sansano.

Affiliation: Miguel Hernández University of Elche, Spain.

Nerve fibers constituting the fornix or cerebral trigone have to follow a complex path to reach their target. Being the starting point in the fimbria of the hippocampus, these fibers get closer to the midline and travel rostrally below the corpus callosum and septum. They descend in close contact with the interventricular hole and caudal to the anterior commissure. In this area they

form the anterior pillars of the fornix. These fibers end up in the caudal hypothalamus, specifically in the mammillary bodies. Some of the fibers will be conducted to the contra lateral hippocampus, generating in this way the hippocampal commissure. In the present work, we have described the development of this axonal structure in mouse embryos, in relation to its surrounding elements. Its embryonic development begins at E14.5 and concludes at 18.5. In addition, we've defined the importance of axon guidance molecules such as netrin-1, and the relevance of the midline structures for the posterior development of the hippocampal commissure and corpus callosum. At E14.5, the first hippocampal pioneers axons are detected, including those that will form the hippocampal commissure. This axonal tract will continue crowing and incorporating axons in the following 24-48 hours. The posterior pillars reached the midline and generated the central body of the fornix. Finally they arrive to the anterior aspect of the interventricular hole and descended generating the anterior pillars. The fibers divided in precommissural fornix fibers that connected with the frontal lobe and septum, and postcommissural fornix posterior to the anterior commissure, reaching the mammillary bodies. We also analyzed the development of the fornix in a holoprosencephaly mouse model. The tract was heavily affected and as it was expected, the hippocampal commissure and corpus callosum were also absent due to the altered midline.

03 Intraventricular Hemorrhage in Preterm Neonate Weighing Less than 1500g.

Authors: Antón Blasco JA, Bernal José L.

Affiliation: Miguel Hernández University of Elche, Spain.

Objective: Analyze the prevalence of the IVH/GMH in VLBW and ELBW and describe the different risk factors associated with it. Review the variables that may be associated with IVH/GMH and observe the relevance of these in terms of the different degrees of the disease. **Methods:** Observational descriptive cross-sectional study that included 28 preterm neonates weighing less than 1500g diagnosed of IVH/GMH by transfontanelar ultrasound treated in the Neonatology Unit of the Elche UGH and borned between June 2009 and December 2013. They are divided into two groups (low-grade and high-grade IVH) and their medical records were analyzed to do a database in which we collected the studied variables. **Results:** The prevalence of IVH was of a 13% and the 61% of these were high-grade IVH. The median of days at diagnosis was 3 days. There weren't differences between complete (39%) or incomplete (39%) doses of antenatal corticosteroids. The most common obstetrical pathology was chorioamnionitis (43%) and 74% of the neonate were born by urgent cesarean. 54% of studied neonates were male. There are a larger prevalence (86%) and grade IVH in neonate that were born at less than 30 completed weeks and 59% of high-grade IVH happened in ELBW. The orotracheal intubation (OTI) was administered to 25 neonate at less than 72 hours. All neonates required ventilatory support and neonates with IVM developed high-grade IVH. In addition, 90% of them were treated with surfactant therapy (54% more of one dose). Pathologies most frequently associated with IVH were: RDS, PDA, apnea and bradycardia, anemia, sepsis and pulmonary hemorrhage. Finally, 9 neonates died and 8 of those showed high-grade IVH. **Discussion:** With transfontanelar Ultrasound Technique, 90% of IVH can be diagnosed at less than 72 hours, as shown in this study. The prevalence of VLBW and ELBW in Elche UGH (2.27%) was higher than the prevalence in Spain due to this study was done in a reference Neonatology Unit. Nevertheless, the prevalence of IVH isn't outside the limits

of other studies, although in this investigation the prevalence of high-grade IVH was greater than the prevalence of the rest of Spain. On the other hand, although most neonates were born by urgent cesarean this is a bias because most preterm neonates were born by this method. However, the connection between chorioamnionitis and IVH of this study may be due to the inflammatory mediators that damaged the blood-brain barrier. The results of this study about the administration of antenatal corticosteroids aren't concluding, so it's necessary to do more studies about the relation between corticosteroids and HIV. Gestational age less than 37 completed weeks and low birth weight also favour the spread of IVH, while the gender is a bias because most preterm neonates are male. OTI, IVM and highest FiO₂ favour the high-grade IVH too. The relation between surfactant therapy and IVH was not found, so more studies are needed to draw clear conclusions about that. Finally, in this study it's found that, based on the bibliography, sepsis, RDS, PDA and anemia are pathologies frequently associated with IVH. **Conclusion: The prevalence of IVH/GMH was of 13%. The 61% were high-grade IVH, of which a 53% survived. The transfontanelar Ultrasound Technique is the standard method of diagnosis. The variables associated with high-grade IVH are: chorioamnionitis, GE<30 weeks, underweight, OTI, MV and higher FiO₂, transfusions and pathology like RDS, PDA, Anemia or sepsis. However, in this study, there is no clear association of IVH with the antenatal corticotherapy, mode of delivery, gender and surfactant therapy.**

04 Clinical and Histopathological study of basal-cell carcinoma. Case series of 833 cases.

Authors: Carlos Ramos Verastica, Sarahi Contreras Sánchez, Silvia Villaman Lugo, Irati María Velasco Santos.

Mentors: Víctor Fernando Muñoz Estrada.

Affiliation: Universidad Autónoma de Sinaloa. Departamento de Dermatología y Micología de la Coordinación universitaria del Hospital Civil de Culiacán, Sinaloa, México.

Introduction: Basal cell carcinoma (BCC) is a neoplasm of origin in the epidermis, limited malignancy, slow growth and exceptional ability to cause metastasis, is the most common bad neoplasm in humans representing 75% of skin cancer non melanoma, is the most skin cancer diagnosed in patients over 50 years. **Objective:** Know the sociodemographic, clinical and histopathologic features of basal cell carcinoma in the Centro de Investigación y Docencia en Ciencias de la Salud at Hospital Civil of Universidad Autónoma de Sinaloa (CIDOCS-UAS) in Culiacan, Sinaloa, México between 1994 to 2014. **Methods:** From 1st of January 1994 to 1st of January 2014, we performed an observational, descriptive, cross-sectional and retrospective study. The population of the study was patients of the department of dermatology and micology of the Centro de Investigación y Docencia en Ciencias de la Salud at Hospital Civil of the Universidad Autónoma de Sinaloa (CIDOCS-UAS) in Culiacan, Sinaloa, México. We study all the files of patients with histopathological diagnosis report of basal cell carcinoma in the time period mentioned. We study the sociodemographic variables of sex, age, occupation, origin and type of skin, clinical variables, topography, clinical forms and histological type were studied. **Results:** From 1994 to 2014 were diagnosed 883 cases of basal cell carcinoma. 56.6% corresponded to female with female-male relation of 1.30:1. The most body part affected was the face with 94.1% of cases, 46.3% of this cases were in nose. 38.7% of the patients have phototype skin II. The most common histological type was the solid variant with 70.2%. **Conclusion:** Basal cell cancer is common and is widely distributed in the state of Sinaloa, Northwestern México, this type of epithelioma is more common in women than man, the most common histopathological type is the solid type and considerable percentage present in individuals under 40 years.

Keywords: Basal cell carcinoma, neoplasm of skin, non melanoma skin cancer, tumor.

05 Descriptive Analysis and Survival in Patients with Castration-Recurrent Prostate Cancer.

Authors: Pelegrín FJ, Pomares A.

Affiliation: Miguel Hernández University of Elche, Spain.

Introduction: Frequency of benign and malign prostate gland alterations increases with senescence. Findings at death of 90% benigns and 70% cancer-related alterations oblige physicians to weigh up benefits and risks of the different treatment options available. Prostate cancer is often initially treated with androgen deprivation therapy (ADT). However, some of these cases can develop hormonal resistance, which force us to consider treatments like chemotherapy. **Methods:** In this observational, descriptive and retrospective study we focused on 56 patients diagnosed of castration-recurrent prostate cancer (CRPC) treated between 1st January 2009 and 27th May 2014 by the Oncology Department of the General University Hospital of Elche (HGUE). Our database was created with IBM SPSS Statistics v21. For the survival analysis a Kaplan-Meier method was conducted for the overall survival. In order to assess the influence of different variables on the survival, a Log-Rank test was used for each one of the following variables: age at diagnosis, stage at diagnosis, metastasis and type of it, PSA at diagnosis, gleason at diagnosis and skeletal related event (SRE). The primary outcome was to describe the CRPC group of patients in the HGUE and to evaluate the overall survival as well as its comparison between the mentioned variables. **Results:** Time to hormonal resistance by gleason at diagnosis was 48 months for gleason 5-7 and 22 months for gleason >7. By age at diagnosis that time was 57 months for <65 years-old, 36 months for 66-79 years-old and 18 months for >80 years-old. By stage at diagnosis: local 57 months, locally advanced 61 months and metastatic 20 months. The median survival adjusted by age was 70 months for 66-79 years-old and 127 months for those <65 years-old ($p=0.047$). Considering gleason the survival was 71 months for 5-7 and 56 months for >7 ($p=0.021$). The median survival by stage: local 104 months, locally advanced 126 months and metastatic 46 months ($p=0.034$). According to skeletal related event the median survival was 56 months for spinal cord compression, 30 months for pathological fracture and 107 months for those without events ($p=0.074$). By PSA the median survival was 69 months for <100 and 51 months for >100 ($p=0.479$). By metastasis at diagnosis the median survival was 70 months for MX, 123 months for Mo, 46 months for M1 bone, 30 months for M1 lymph nodes and 47 months for .2 locations ($p=0.048$). **Conclusion:** Time to hormonal resistance depends on the age at diagnosis, the stage and the gleason value. Median survival time was higher with less gleason, stage, age and type of metastasis.

06 Decision-Making Algorithm for Patients with Pancreatic Tumors.

Authors: Ana Alcaraz Serna.

Mentors: Piotr Suchocki

Affiliation: Medical University of Warsaw, Department of Bioanalysis and Drug Analysis.

Introduction: Pancreatic tumors are still an important healthcare problem and despite the technological progress, they suppose a clinical challenge in the diagnosis and treatment field. The most frequent pancreatic malignant tumors, the adenocarcinoma, registers a similar incidence and mortality rates. Surgery plays a crucial role in the management of pancreatic tumors, because it is the only potential curative treatment. The aim of this research is the development of a decision-making algorithm for patients with pancreatic mass. **Methods:** A systematic review of the scientific literature in automated databases (Pubmed and Google Scholar) was made using the following keywords: páncreas, mass, pancreatic neoplasm, algorithm, assessment. Clinical guides, systematic reviews and original papers were selected and duplicates were removed. All documents were reviewed by the research team. For the graphical representation we used the Smartdraw Software. **Results:** With the resulted information from the systematic review, a decision-making algorithm was made. This algorithm will be validated retrospectively using the patient-database of the General Surgery Department of the San Carlos Clinical Hospital.

07 **Isolated Corticotropin Deficiency (Lymphocytic Hypophysitis): Study of 4 Patients and Literature Review.**

Authors: Alejandra Varó Seva, Rafael Cerezo Vidal, Carolina Pla Cortés, Víctor González Sánchez, Rocío Alfayate Guerra, Antonio Picó Alfonso.

Affiliation: Universidad Miguel Hernández de Elche. Hospital General Universitario de Alicante, Alicante, Spain.

Introduction: The Isolated Corticotropin Deficiency is usually an infrequent entity characterized by a diminished production of cortisol secondary to failure in the corticotropin secretion with preservation of the rest of the hypophysis function and absence of structural defect of the gland. The main causes are: iatrogenia, Lymphocytic Hypophysitis, postpartum Partial Hypophysis Apoplexy or traumatic hypothalamus injuries. Regarding epidemiology, it is most common in women (ratio 7:1, middle age 35 years) and it often appears during pregnancy or postpartum (70%). **Objective:** To describe clinical, biochemical and radiological findings of the isolated corticotropin deficiency on a Lymphocytic Hypophysitis possible context, and also to study the immunitary system alteration associated with the pathology. **Methods:** Retrospective review of four clinical cases at the Endocrinology Service of Hospital General Universitario in Alicante, Spain. Those patients were diagnosed with Isolated Corticotropin Deficiency. Hypophysis and thyroid autoimmunity study has been done. **Results:** On one hand, these are the medical findings of our four patients: the hormone abnormalities associated with corticotropin deficiency were: in patient 1, decreased levels of IGF-I; in patient 2 none hormone abnormalities were found; in patients 3 and 4 increased levels of PRL and IGF-I were found. With regard to neurohypophysary affection, we only found alterations in patient 3, but it was a transitory affection. We found also some autoimmune diseases associated as: Raynaud Syndrome, C3 complement deficiency and atopic dermatitis in patient 1; ANA positives (1/160) in patient 3; and ANA positives (1/80) in patient 4. Only the patient 2 had not any autoimmune association, but her alterations appeared during the postpartum period. On the other hand, hypophysis and thyroid autoimmunity study findings were: anti-hypophysis antibodies negatives in the four patients; and anti-thyroid antibodies negatives in patients 2 and 3, but anti-TPO levels increased in patient 4 (as long as anti-TG in this patient was also negative). These antibodies were non-determined in patient 1. **Conclusion:** The Isolated Corticotropin Deficiency without any other evident causes probably reflects a Lymphocytic Hypophysitis. The most common hormone abnormality associated with corticotrophin deficiency that we have found is hyperprolactinemia. Nevertheless, in the literature exist some cases described with increased levels of IGF-I and we would interpret these results in the context of a GH hypersecretion. In our series, 2 of 4 cases presented in any moment during the follow-up high concentration of IGF-I. Therefore, the Lymphocytic Hypophysitis continues being a slightly studied disorder and scantily suspected too.