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Scientific Annals

of the Nicolae Testemitanu
State Medical and Pharmaceutical University

Special Edition



Program and Abstract Book

**2nd International Medical Congress
for Students and Young Doctors**

MedEspera

May 14-17, 2008, Chisinau, Republic of Moldova



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of the Nicolae Testemitanu
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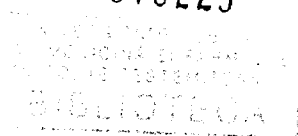
Special Edition

Program and Abstract Book

2nd International Medical Congress for Students
and Young Doctors "MedEspera"

May 14-17, 2008

676225



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Welcome

By the Rector of the "Nicolae Testemitanu" State Medical and Pharmaceutical University



Under the conditions of strong intellectualization of modern society, there is an expanding rhythm for youth interest regarding the research activity, without which there can not be achieved a social development, including the medical field.

It is admiring the fact that in 2006 namely the activist youth of the State Medical and Pharmaceutical University "Nicolae Testemitanu" promoted the initiative to gather under Alma Mater the colleagues from different countries of the world, to get acquainted and make new relations of friendship and collaboration.

The start was very pleasant and today we are at the 2nd edition of the International Medical Students and Young Doctors Congress "MedEspera 2008", that becomes a nice tradition and that I sincerely hope will continue in time. I consider it relevant that this congress subscribes directly to the manifestations dedicated to the Youth's Year announced in the Republic of Moldova.

The presence at this event of the future doctors and pharmacists from 10 countries is evident proof that our University is well known and has entered the European educational area and is also speaking about active civic position of this

region's young persons.

Considering the English and French languages as official in the congress there must be emphasized the tendency of the medical youth to overcome linguistic barriers, to orientate the efforts towards the society's consolidation, to search solutions in common, including the creative and scientific ones, in the difficult struggle for the people's health and life.

Dear young colleagues!

In the name of the academic community of the State Medical and Pharmaceutical University "Nicolae Testemitanu", it's a great pleasure to wish all of you good luck in attending the actual congress' program.

We are convinced that the intelligence, curiosity, enthusiasm and energy that characterize you will help to extend your knowledge and put the basis of new partnership projects with the other countries, for the common welfare and development of nations.

Good luck and best regards!

**Rector Ion ABABII,
M.D., Ph.D., Professor,
Academician**

În condițiile informatizării și intelectualizării impetuoase a societății moderne, crește în ritm și interesul tineretului față de activitatea de cercetare științifică, fără de care este de neconceput o dezvoltare socială progresivă, inclusiv în domeniul medicinei.

Este admirabil faptul că, în 2006, anume tineretul studios al Universității de Stat de Medicină și Farmacie „Nicolae Testemițanu” a promovat inițiativa de a întruni la Alma Mater semenii din diverse țări ale lumii, pentru a se cunoaște mai îndeaproape și pentru a lega noi relații de prietenie și colaborare.

Debutul a fost de bun augur și astăzi suntem la cel de-al 2-lea Congres Internațional al Studenților și Tinerilor Medici „MedEspera 2008”, care devine deja o frumoasă tradiție și care sper mult să se înrădăcineze și să perpetueze în timp. Consider semnificativ faptul, că acest congres se înscrie organic în suita de manifestări consacrate Anului Tineretului în Republica Moldova.

Prezența la acest eveniment a viitorilor medici și farmaciști din 18 țări este o dovadă elocventă a faptului că Universitatea noastră a devenit cunoscută și s-a înscris în aria educațională europeană, dar și o mărturie a poziției civice active a tineretului din acest spațiu.

Desfășurarea lucrărilor congresului în limbile engleză și franceză denotă despre tendința tineretului medicinist de a depăși barierele lingvistice, de a-și orienta eforturile spre consolidarea societății, de a căuta în comun soluții, inclusiv de ordin creativ și științific, în dificila luptă a medicilor pentru viața și sănătatea oamenilor.

Dragi tineri colegi!

În numele comunității academice a USMF „Nicolae Testemițanu”, am deosebită plăcere să vă urez mari succese în realizarea programului de activitate al acestui forum al tinereții.

Suntem ferm convinși că inteligența, cutezanța, curiozitatea, entuziasmul și energia care vă caracterizează vă vor permite să extindeți orizontul cunoștințelor, vor pune temelia unor noi proiecte de parteneriat cu tineretul medicinist din diferite țări, pentru binele tuturor popoarelor, pentru supraviețuirea omenirii și dezvoltarea ei durabilă.

Într-un ceas bun și spre noi izbânzii!

**Rector Ion ABABII,
profesor universitar, dr. hab.,
academician al A.Ș.R.M.**

President of Honor

Ion ABABII – M.D., Ph.D., Professor, Academician,
Rector of the “Nicolae Testemitanu” State Medical and Pharmaceutical University

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Editor-in-chief of the Program and Abstract Book (Scientific Annals of
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Welcome by the Organizing Committee

Dear colleagues and friends!

The beginning of the XXI century is characterized by a rapid development of medicine and all sciences related to it, that provoke new discussions in the whole medical world referring not only to the process of scientific research, but also everyday activity of each of us. It is about the formation and foundation of new principles of human health, new ideals of medical activities and perspectives of human and social development for the worldwide collaboration, as well as the medical communities uniting in order to fight, stop and reverse the actual tendency of the spreading diseases.

The consciousness of the contemporary men is dominated by the ideas of a new world, together with a healthy, wealthy and free future. The scientists are convinced that medical innovations are not limited. It is compared to a natural calamity that is impossible to stop. The most relevant goal is to take control over these elaborations from the experimental point towards the becoming of a daily practice guide.

The 2nd edition of the International Medical Congress for Students and Young Doctors "MedEspera 2008" gathers young persons from medical institutions from many countries, people that are involved in research activities and that are not careless to what happens in medicine today, and therefore the future of humanity.

During this congress' program we hope to have a productive experience exchange, to create friendly relations and also scientific and practical collaborations, to initiate an international partnership as well as to unite efforts and youth's interests in order to elucidate and solve problematic situations that endanger human health and life, all these corresponding to actual imperatives.

We wish everybody success in attending this congress. In the future we'll try to keep this nice tradition of the State Medical and Pharmaceutical University "Nicolae Testemitanu".

Dragi colegi și prieteni!

Începutul secolului XXI se caracterizează printr-o dezvoltare accelerată a medicinei și a tuturor științelor înrudite, care provoacă noi discuții în întreaga lume medicală cu referire nu doar la procesul de cercetare științifică a savanților, dar și la activitatea cotidiană a fiecăruia dintre noi. Este vorba de formarea și fundamentarea noilor principii ale sănătății umane, noilor idealuri ale activității medicale, perspectivelor dezvoltării omului și societății întru colaborare globală, cât și de consolidarea întregii comunități medicale în lupta pentru stoparea și inversarea tendinței actuale de răspândire a unor maladii.

Conștiința omului contemporan este dominată de ideile unei noi lumi, unui viitor sănătos, prosper și liber. Savanții sunt convinși că explorările științifice medicale nu pot fi limitate. Progresul medicinei se compară cu o calamitate naturală, care nu poate fi stopată. În aceste condiții scopul principal constă în controlul strict asupra noilor elaborări de la etapa experimentală și până la implementare în practica zilnică.

Congresul Internațional al Studenților și Tinerilor Medici „MedEspera 2008” întrunește tineri și tinere din instituțiile medicale a mai multor țări, tineri care sunt implicați în activitatea de cercetare-dezvoltare și care nu sunt indiferenți de ceea ce se întâmplă în medicină astăzi și, prin urmare, de viitorul omenirii.

În cadrul acestui for științific sperăm să facem schimb de experiență, să stabilim relații de prietenie și colaborare științifico-practică, să inițiem un parteneriat internațional, să ne unim eforturile și elanul tineresc la elucidarea și rezolvarea acelor probleme, care pun sub pericol sănătatea și viața oamenilor.

Urăm tuturor succese în realizarea programului de activitate al Congresului. Pe viitor ne vom strădui să menținem această frumoasă tradiție a tineretului studios al Universității de Stat de Medicină și Farmacie „Nicolae Testemitanu”.

Congress Program

Wednesday, May 14, 2008

- 8:00-17:30** Registration and Accommodation (*Ion and Doina University Cultural Centre*)
19:00-20:00 Opening Ceremony of the Congress “MedEspera-2008” (*Senate Hall*)
20:30 Welcome Party (*Ion and Doina University Cultural Centre*)

Thursday, May 15, 2008

- 8:30** Breakfast (*University Canteen*)
9:00-10:45 1st Conference Session
10:45-11:00 Coffee-break
11:00-13:30 2nd Conference Session
13:30-14:30 Lunch (*University Canteen*)
14:30-17:30 3rd Conference Session
19:00 Banquet

Friday, May 16, 2008

- 9:00** Breakfast (*University Canteen*)
10:00-12:00 Work-shops:
- Contemporary Methods of Cervical Cancer Prophylaxis. Cervarix: a new vaccine that will protect from cervical cancer (*Senate Hall*)
- Bosnalijek Products in the Treatment of Dermatovenerological Diseases (*Conference Hall*)
13:00-13:45 Lunch (*University Canteen*)
14:00-18:00 Post Congress Tour (*Capriana Monastery*)
19:00 Free time

Saturday, May 17, 2008

- 9:00-10:30** Closing Ceremony (*Senate Hall*)
10:30 Departure

Program in Sections

Medical Fundamental Sciences Section

Thursday, May 14, 2008, 09:00

Central Block, Molecular Biology and Human Genetics Department' Hall

Chairman: Victor Ghicavii, M.D., Ph.D., Professor

Moderators: Victor Vovc, M.D., Ph.D., Professor

Igor Cemortan, Ph.D., Associate Professor

Lilian Saptefrati, M.D., Associate Professor

Secretary: Tautu Rodica, 3rd year Student

Oral Presentations

Anatomy in the Byzantine Iconography

Cucu Andrei Ionut

Academic advisers: Ioan Cucu, M.D., Ph.D., Professor; Laura Ciobanu, M.D., Ph.D., Associate Professor
"Gr.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Contribution to Morphoclinical Study of Intramyocardial Topography of Coronary Arteries

Tasnic Mihai

Academic advisers: Andrei Iarovoi, M.D., Ph.D., Professor; Ilie Catereniuc, M.D., Ph.D., Associate Professor
"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Changes in Structure of the Human Cerebellum in Alcohol-Narcotic Intoxication

Vun Jan Shui Ivan, Khoo Ching Soong

Academic adviser: Oleg Belovitsky, M.D.
Crimean State Medical University, Simferopol, Ukraine

Morphological Changes in Components of the Blood-Gas Barrier in Acute Alcohol Intoxication

Khoo Ching Soong, Vun Jan Shui Ivan

Academic adviser: Oksana Skrebkova, M.D.
Crimean State Medical University, Simferopol, Ukraine

Leflunomide Effects in Experimental Chronic Arthritis

Cucu Andrei Ionut, Orzaru Florentina Daniela

Academic adviser: Mihaela Chicu, M.D., Ph.D., Assistant Professor
"Gr.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Connection between the Plasma Homocysteine Levels and the Progression of Atherosclerosis

Lazar Ioanina Sorana

Academic adviser: Elena Albu, M.D.
"Gr.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Efficiency of the Antioxidants in a Common Use**Macovei Ana, Baltag Valentina, Brinza Sergiu**

Academic adviser: Rodica Spinei, Junior Lecturer

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Hemocystine – Coronarian Risk Factor**Martinescu Gabriel, Crumpei Iulia, Moraru Dan**

Academic adviser: Nastasia Gheorghita, M.D., Ph.D., Professor

"Gr.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Influence of S-alchilizitiuretic Derivates on Oxygen Use**Voica Mihai, Colesnic Victor, Dragan Ion, Savga Natalia**

Academic adviser: Victor Ghicavii, M.D., Ph.D., Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Influence of Inductor and Suppressor Enzymes on Sleep Induced by Barbiturates**Bulat Alexandru, Bujor Andrei, Fedoseev Vadim, Gustiuc Vasile**

Academic adviser: Ina Pogonea, Junior Lecturer

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Antibiotic Susceptibility for Nasal and Pharyngeal Bacterial Strains Isolated from Medical Students**Gheorghe-Guta Anamaria, Oanea Mara Madalina**

Academic adviser: Mircea Ioan Popa, M.D., Ph.D., M.P.H., Professor

"Carol Davila" Medical and Pharmaceutical University, Bucharest, Romania

Recreational Consumption of Dextromethorphan – Pharmacoepidemiologic Study**Roman Andreea, Cuzincu Ciprian, Cordon Cristiana, Merauta Adnana, Petrea Oana**

Academic adviser: Liliana Tartau, M.D., Assistant Professor

"Gr.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Effect of Estradiol on Denudated Endothelium Induced by Homocysteine in Male Rats**Mihaila Cristina-Elena, Bejinariu Alexandru-Gabriel**

Academic advisers: Lucia-Carmen Trinca, M.D., Ph.D., Associate Professor; Mihai Condrea, M.D., Ph.D., Associate Professor

"Gr.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Congenital Nephrotic Syndrome of the Finnish Type. Case Report**Tudorache Anca-Mihaela, Dobroslav Vitalie, Carapcevski Anatolie, Petrea Cecilia Maria, Panait Claudia, Ciobanu Ionela, Alexandru Diana**

Academic adviser: Florentina Cucer, M.D., Assistant Professor

"Gh.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Appreciation of Molecular-Genetic Markers in Genetic Analysis of Hypertension in Republic of Moldova**Nicolaescu Lilian, Cotelea Valeria**

Academic adviser: Igor Cemortan, Ph.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Ethical Considerations in Embryo Stem Cell Utilization (Review)**Oineagra Rodica**

Academic advisers: Igor Cemortan, Ph.D., Associate Professor; Anatol Esanu, M.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

The Normal Gut Flora - Interactions with the Human Body

Oanea Mara Madalina, Gheorghe-Guta Anamaria

Academic adviser: Mircea Ioan Popa, M.D.

“Carol Davila” Medical and Pharmaceutical University, Bucharest, Romania

Modifications in Biochemical Parameters in Experimental Nephropathy Induced by 1,2-propandiol

Buracovschi Marin, Tautu Rodica

Academic adviser: Olga Tagadiuc, M.D., Ph.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Conduction System of the Heart - Comparative Study

Gaina Felicia, Handa Ramona Alexandra

Academic advisers: Carmen Crivii, M.D.; Mariana Marginean, M.D.

“Iuliu Hatieganu” Medical and Pharmaceutical University, Cluj-Napoca, Romania

Medical Alternatives to Blood Transfusions

Seu Vadim

Academic adviser: Corneliu Hangan, M.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Obtaining Methods of Insulin-Producing Cells (Pancreatic-Beta Cells) and Transplantation Methods in Type 1 Diabetes Mellitus

Corobciuc Alexei, Nacu Victoria

Academic adviser: Vasile Lutan, M.D., Ph.D., Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Objective Findings and Clinical Diagnosis in Reflex Sympathetic Dystrophy

Melnicov Victoria, Grosu Stanislav, Gotonoaga Eugen

Academic adviser: Anatol Visnevschi, M.D., Ph.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Internal Medicine Section

Thursday, May 14, 2008, 09:00

Central Block, Conference Hall

Chairman: Ion Moldovanu, M.D., Ph.D., Professor
Moderators: Victor Botnaru, M.D., Ph.D., Professor
Iurie Moscalu, M.D., Associate Professor
Eremia Zota, M.D., Associate Professor
Eugen Russu, Junior Lecturer
Secretary: Gavriiliuc Eugen, 1st year Resident, Neurology

Oral Presentations

Treatment of Obstructive Sleep Apnea Syndrome with Continuous Positive Airway Pressure

Gramada Tudor, Lazar Ioanina Sorana, Gramada Adrian

Academic adviser: Daniela Boisteanu, M.D.

“Gr.T.Popa” Medical and Pharmaceutical University, Iasi, Romania

Restless Legs Syndrome in Patients with Various Neurological Disorders

Casapciuc Alexandru

Academic adviser: Ion Moldovanu, M.D., Ph.D., Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Alodinie et Autres Troubles de la Sensibilité au Patients avec la Migraine Chronique

Concescu Diana

Coordonnateur scientifique: Ion Moldovanu, D.S.M, Professeur

L’Université d’Etat de Médecine et de Pharmacie «Nicolae Testemitanu», Chisinau, République de Moldova

Comparison of Clinical Features and Onset of Anorexia Nervosa in 10 Years Period

Sulek Stepan

Academic adviser: P. Kabicek, M.D.

Department of Pediatrics and Adolescent Medicine, First Faculty of Medicine, Prague. Czech Republic

Sexual Behaviour Changes in Persons Suffering from Migraine

Stegarescu Ion

Academic adviser: Ion Moldovanu, M.D., Ph.D., Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Usage of Massage-Therapy in Patients with Hemiparesis in Association with Depressive Disorders

Bandati Alexei, Bandati Anna

Academic adviser: V. Grigor, M.D.

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Risk Factors in Young Patients with Ischemic Stroke

Gaberi Cristina

Academic adviser: Eremia Zota, M.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Psychological Factors in Chronic Low Back Pain

Sajin Valeria

Academic adviser: Ion Moldovanu, M.D., Ph.D., Professor
"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Restless Legs Syndrome in Correlation with Emotional Dysfunction in Medical Students

Sidorenko Svetlana

Academic advisers: Victor Vovc, M.D., Ph.D., Professor; Ion Moldovanu, M.D., Ph.D., Professor
"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Ischemic Vascular Disorders of Spinal Medulla in Fibrosing Hypertrophic Pachymeningitis

Gavriliuc Eugen

Academic adviser: Diomid Gherman, M.D., Ph.D., Professor
"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Les Kinésies Paradoxaes dans la Maladie de Parkinson - Review, Etude Clinique

Cucovici Aliona

Coordonnateur scientifique: Ion Moldovanu, D.S.M. Professeur
L'Université d'Etat de Médecine et de Pharmacie «Nicolae Testemitanu», Chisinau, République de Moldova

Peculiarities of Cardiovascular Affection in Patients with Liver Cirrhosis

Prysyazhnyuk Vasyl, Prisyazhniuk Iryna

Academic adviser: O. I. Voloshyn, M.D., Ph.D., Professor
Bukovinian State Medical University, Chernivtsi, Ukraine

Evaluation of Atrioventricular Node Physiology in Patients Undergoing Catheter Ablation for Atrioventricular Node Reentrant Tachycardia

Rudzik Roxana, Kincso Matyas

Academic adviser: Dan Dobreanu, M.D., Ph.D., Professor
Cardiovascular Diseases and Transplant Institute, Electrophysiology Department, Targu Mures, Romania

Infectious Endocarditis. Case Report

Necula Daniel

Academic adviser: Cristina Tiu, M.D.
"Carol Davila" Medical and Pharmaceutical University, Bucharest, Romania

Severe Coronarian Lesions in Patients with New-Onset Angina Pectoris

Irimia Elena-Ramona, Dumitru Marius-Octavian

Academic advisers: Voichita Sirbu, M.D.; Mihaela Opris, M.D.
Medical and Pharmaceutical University, Targu-Mures, Romania

Vasoactive Therapy in Lesions of the Mitral and Aortic Valves with Chronic Regurgitation

Cerevan Eugen

Academic adviser: Eugen Russu, Junior Lecturer
"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Principles of Echocardio in Mitral Valve Prolapse

Mogildea Alina

Academic adviser: Sergiu Cuciuc, M.D.
"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Importance of Body Mass and Waist Circumference in Patients with Arterial Hypertension in Association with Obesity**Ochisor Viorica, Dascal Georgeta**

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Cardiology Department, Chisinau, Republic of Moldova

Left Ventricle Dysfunction Induce Atrial Fibrillation or Vice Versa?**Avasiloae Cristina, Curmei Nadejda**

Academic adviser: Valeriu Revenco, M.D., Ph.D., Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Investigation of Tolerance to Physical Effort in Patients with Chronic Obstructive Pulmonary Disease**Ursachila Diana, Cretu Alisa**

Academic adviser: Alexandru Corlăteanu, Junior Lecturer

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Chronic Kidney Disease (CKD) and the Risk of Cardiovascular (CV) Events**Migali Gabriela**

Academic adviser: Michel Jadoul, M.D.

Université Catholique de Louvain (UCL), Belgium

Epidemiological and Clinical Peculiarities of Mumps in Adolescents and Adults during the Outbreak of 2007-2008 in Republic of Moldova**Sankarankuzhi Shukoor Fathima, Kaippadath Jishad**

Academic adviser: Stela Cojocaru, M.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Pegasys and Copegus in the Treatment of Chronic Hepatitis C**Mecineanu Elena**

Academic adviser: Valentina Poting – Rascov, M.D., Assistant Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Efficiency of Antiretroviral Treatment (ARVT) in Patients Infected with HIV**Popovici Svetlana, Luca Lucia, Nagit Angela**

Academic adviser: Victor Pinteă, M.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Diabetes Secondary to Hypertriglyceridemia Induced by Chronic Pancreatitis. Case Report**Makkai-Popa Silviu-Tiberiu, Rusu Simona, Ciubotariu Mihaela**

Academic adviser: Gina Botnariu, M.D., Ph.D.

“Gr.T.Popa” Medical and Pharmaceutical University, Iasi, Romania

Insulin Resistance and Disorders of the Lipid Metabolism**Madan Diana**

Academic adviser: Silvia Stratulat, M.D., Assistant Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Spectrum of Idiopathic Inflammatory Myopathies**Haroun A. Karim, Vetrila Snejana**

Academic adviser: Mindora Mazur, M.D., Ph.D., Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Antiresorptive Treatment of Osteoporosis in Psoriatic Arthritis**Moraru Grigore, Gurianova Ludmila**

Academic adviser: Eugeniu Russu, Junior Lecturer

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Enthesal Pain in Patients with Psoriasis**Bodrug Inga, Grejdieru Alexandra**

Academic adviser: Minodora Mazur, M.D., Ph.D., Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Cardiovascular Aspects in Patients with Systemic Lupus Erythematosus (SLE)**Kaesom Ammar, Yassen Atiqa, Haroun A. Karim, Arab Mosab, Mohammad Abdullah**

Academic adviser: Lucia Mazur, Junior Lecturer

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Diastolic Abnormalities of the Cardiac Function in Systemic Sclerosis: Evidence for Associated Defective Cardiac Functional Reserve**Cerevan Eugen**

Academic adviser: Eugeniu Russu, Junior Lecturer

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Diffuse Liver Infiltration by Melanoma. Case Report**Avricenco Mariana, Chiriakov Galina**

Academic adviser: Gheorghe Placinta, M.D., Associate Professor

"Toma Ciorba" Hospital of Infectious, Tropical and Parasite Diseases, Chisinau, Republic of Moldova

Clinical-Hematological Features in Evolution of Malignant Tumors**Zgircea Svetlana**

Academic adviser: Iurie Chelea, M.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Ferromagnetic Particle Magnetocaloric Effects in Magnetic Fluid Hyperthermia Cancer Therapy**Gradinariu George, Pavel Mariana**

Academic adviser: Alexandru Stancu, M.D., Ph.D., Professor

"Gr.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Ancient China Meridians and Modern Theory of Fractals**Sidorenko Ludmila, Sidorenko Irina**

Academic advisers: Victor Lacusta, M.D., Ph.D., Professor; Victor Vovc, M.D., Ph.D., Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Poster Presentations**Treatment with Pacovirin in Viral Chronic D Hepatitis****Cojuhari Lilia, Iarovi L., Seminiuc S., Ceboatarescu V., Spinu I.**

Academic adviser: Victor Pintea, M.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Pacovirine Usage in Acute Viral C Hepatitis**Cojuhari Lilia, Iarovi L., Seminiuc S., Ceboatarescu V., Spinu I.**

Academic adviser: Victor Pintea, M.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Clinical Aspect of Atrial Fibrillation in Patients with Thyroid Gland Dysfunction**Gratii Cristina, Cuzor Tatiana, Diaconu Nadejda, Cenus Octavian**

Academic adviser: Aurel Grosu, M.D., Ph.D., Professor

Institute of Cardiology, Chisinau, Republic of Moldova

Surgical Sciences Section

Thursday, May 14, 2008, 09:00

Central Block, Senate Hall

Chairman: Eugen Gutu, M.D., Ph.D., Professor
Moderators: Boris Topor, M.D., Ph.D., Professor
Toader Timis, M.D., Associate Professor
Grigore Verega, M.D., Associate Professor
Adrian Belii, M.D., Associate Professor
Andrei Tibirna, Junior Lecturer
Secretary: Moscalu Vitalie, 6th year Student

Oral Presentations

Modular Mechatronic Device for Laparoscopic Applications

Ivanova Veronika, Velichko Dobrinov

Bulgarian Academy of Sciences, Central Laboratory of Mechatronics and Instrumentation, Sofia, Bulgaria

Basic Surgical Skills Training for Medical Students – What Can Be Improved?

Climov Mihail, Garofil Dragos, Nistor Bogdan, Vinersar Bogdan, Bacanu Alexandru, Toma Dorin

Academic adviser: Vlad Marius, M.D., Associate Professor

“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

Casuistry – Medical Fact

Dogaru Constanta, Rosca Ecaterina

Academic adviser: Vladimir Ceres, M.D., Assistant Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Right Portal Vein Ligation in Hepatic Surgery. Clinical and Experimental Study

Fodor Decebal Romulus

Academic advisers: Constantin Copotoiu, M.D., Ph.D., Professor; Bogdan Moldovan, M.D., Assistant Professor

Medical and Pharmaceutical University, Targu-Mures, Romania

Abdominal Lymphatic Cysts in Adults

Misina Ludmila, Marcu Andrei

Academic adviser: Eugen Gutu, M.D., Ph.D., Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Non-Operative Solving of the Blunt Hepatic Trauma

Gurghis Radu, Gafton V., Guzun S.

Academic adviser: Gheorghe Rojnoveanu, M.D., Ph.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Liver Resection for Benign Disease and Liver Tumours

Chesov Ion

Academic adviser: Adrian Hotineanu, M.D.

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Laparoscopic Funduplications in the Treatment of Hiatal Hernias

Rotaru Dorin

Academic adviser: Anatolie Ghereg, M.D., Ph.D., Associate Professor
 "Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Thoracic Aortic Aneurysm

Cuciuc Sergiu

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Gigantic Axillary Artery Pseudoaneurysm after Scapulo-Humeral Dislocation

Bejinariu Alexandru-Gabriel, Mihaila Cristina-Elena

Academic adviser: Radu Popa, M.D.
 "Gr.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Modalities of Horizontal Venous Reflux Interruption during Subfascial Endoscopic Perforator Surgery

Culiuc Vasile

Academic adviser: Eugen Gutu, M.D., Ph.D., Associate Professor
 "Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Extraanatomic By-Passes in Contemporaneous Vascular Surgery

Delogramatic Cornel

Academic adviser: Boris Topor, M.D., Ph.D., Professor
 "Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Coronary By-Pass in Surgical Treatment of Ischemic Heart Disease

Moscalu Vitalie

Academic advisers: Alexandru Iliadi, M.D.; Vitalie D. Moscalu, M.D., Ph.D.
 "Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Minimally Invasive Endoscopic Discectomy - Technical Note

Borodin Serghei, Bodiul Aurel, Eftodiev Eduard, Lisii Dan, Sumleanski Alexandru

Academic adviser: Grigore Zapuhlii, M.D., Ph.D., Professor
 "Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Lumbar Hernia and Difficulties of Diagnosis. Case Report

Popa Carolina

Academic adviser: Natalia Rotaru, M.D., Ph.D., Professor
 "Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Endoscopic Treatment of Spontaneous Intracerebral Haemorrhage Associated or Not with Massive Ventricular Haemorrhage

Sumleanski Alexandru, Lisii Dan, Bodiul Aurel, Borodin Serghei

Academic adviser: Grigore Zapuhlii, M.D., Ph.D., Professor
 "Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Implementation of Endoscopic Inspection Method in Surgical Treatment of Late Subdural Haematomas

Barari Adrian, Ciudin Eudochia

Academic adviser: Anatol Gumeniuc
 "Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Role of Echoguided Biopsy in Prostate Affections Diagnosis**Stegarescu Ion**

Academic adviser: Ion Dumbraveanu, M.D., Ph.D., Associate Professor
“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Laser Surgery Methods in Ocular Diseases Treatment**Cusnir Valeriu, Cusnir Vitalie, Magdei Corina**

Academic adviser: Valentina Lupan, M.D., Ph.D., Associate Professor
“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Variations of Intraocular Pressure in Students of “N.Testemitanu” SMPHU**Golban Rodica**

Academic advisers: Eugen Bendelic, M.D., Ph.D., Professor; Ion Jeru, M.D., Associate Professor
“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Hemangioblastoma: a Clinical, Microscopical and Radiological Study of 43 Patients**Banijamali Maryam, Rahman Amlashi Nima, Rahman Amlash Nazanin**

Academic adviser: Afshin Moradi, M.D.
Guilan University, Rasht, Iran

Reliability of Detection and Biopsy of Sentinel Lymph Node in Patients with Breast Cancer**Markoski Aleksandra, Stamenkovic Dragana, Marinkovic Ivana**

Academic adviser: M. Vljakovic, M.D.
University of Niš, Faculty of Medicine, Department of Nuclear Medicine, Niš, Serbia

Preoperative Management of the Patients with Advanced Ovarian Cancer**Piterschii Alexandru, Marcu Andrei**

Academic adviser: Ion Mereuta, M.D., Ph.D., Professor
“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Diagnosis Pitfalls of Acute Anterior Cruciate Ligament Injury**Nistor Bogdan, Pojoga Adrian, Silivestru Victor, Oancea Florin**

Academic adviser: Gabriel Dinu, M.D., Ph.D.
Clinical Emergency Hospital, Bucharest, Romania

Recurrent Post-Traumatic Patellar Instability – Our Approach**Pojoga Adrian, Nistor Bogdan, Manoli Carmen, Silivestru Victor, Oancea Florin**

Academic adviser: Gabriel Dinu, M.D., Ph.D.
Clinical Emergency Hospital, Bucharest, Romania

New Trends in Anterior Cruciate Ligament Reconstruction**Nistor Bogdan, Pojoga Adrian, Manoli Carmen, Silivestru Victor, Oancea Florin**

Academic adviser: Gabriel Dinu, M.D., Ph.D.
Clinical Emergency Hospital, Bucharest, Romania

Use of Tissue Expansion for Reconstruction of Post-Burn Alopecia**Cosneanu Rodica, Taran Anatol**

Academic adviser: Dumitru Scerbatiuc, M.D., Ph.D., Professor
“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Face Burn Management: The Betadine Role**Cosneanu Rodica, Taran Anatol**

Academic adviser: Dumitru Scerbatiuc, M.D., Ph.D., Professor
“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Treatment of the Leg Skin Defects by Plasticity with Medial Plantar Flap (MPF)**Marusic Dragos**

Academic adviser: Grigore Verega, M.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Traumatisme Thoracique Grave Complique avec le Syndrome de Détresse Respiratoire chez l'Adulte (SDRA) (Cas Clinique)**Savan Veaceslav, Ursu Denis, Arnaut Oleg, Baltaga Ruslan**

Coordonnateur scientifique: Serghei Sandru, D.S.M, Maître de Conférences

L'Université d'Etat de Médecine et de Pharmacie "Nicolae Testemitanu", Chisinau, République de Moldova

Objective Evaluation of Injury Severity in Multiple Traumas of Musculoskeletal System**Kusturova Anna**

Academic adviser: Vladimir Kusturov, M.D.

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Surgical Management of Sternal Infected Wounds**Ciubotariu Nicolae Grigore, Ciubotariu Mihaela, Panait Claudia, Chitariu Mirela, Tudorache Anca-Mihaela, Makkai-Popa Silviu-Tiberiu, Rusu Simona**

Academic adviser: Romain Vanwjick, M.D., Ph.D.

"Gr.T.Popa" Medical and Pharmaceutical University, Iasi, Romania

Surgical Treatment Aspects of Spinal Canal Stenosis in Thoracic and Lumbar Localization**Stupac Ion**

Academic adviser: Nicolae Capros, M.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Etiology of Dupuytren's Contracture Syndrome according to the Cases Registered in Republic of Moldova**Ghebos Nadejda**

Academic adviser: Grigore Verega, M.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Treatment of Hip Osteonecrosis**Croitor Roman**

Academic adviser: Alexandru Betisor, M.D., Junior Lecturer

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Manual Administration of the Hypnotics and Opioid Drugs during Total Intravenous Anaesthesia: End of an Era**Savan Veaceslav, Belii Natalia**

Academic adviser: Adrian Belii, M.D., Ph.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Role of "Golden Hour" Strategy in the Management of Critical Trauma Patients**Arnaut Oleg, Ursu Denis, Tcaciuc Tatiana, Baltaga Ruslan**

Academic adviser: Serghei Sandru, M.D., Ph.D., Associate Professor

National Centre of Emergency Medicine, Chisinau, Republic of Moldova

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Comparison of Spinal and Spinal Epidural Anaesthesia in Orthopaedic Surgery

Sankarankuzhi Shukoor Fathima, Baltaga Ruslan, Kaippadath Jishad, Cobiletchi Serghei

Academic adviser: Serghei Sandru, M.D., Ph.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Poster Presentations

Volvulus of the Sigmoid Flexure: Operative Treatment in a 72-Year-Old Patient

Petrea Cecilia Maria, Tudorache Anca-Mihaela, Boroianu Camelia, Teodorescu Raluca, Popescu Anca

Academic adviser: Radu Iulian, M.D., Ph.D., Associate Professor

“Gr.T.Popa” Medical and Pharmaceutical University, Iasi, Romania

Treatment and Complications of Hepatic Hydatid Disease - Retrospective Analysis of 455 Cases

Blajut Florin Cristian, Sgarbura Olivia, Tuhari Tudor

Academic adviser: Victor Tomulescu, M.D., Ph.D.

“Carol Davila” Medical and Pharmaceutical University, Bucharest, Romania

Common Anaesthesia Errors and Their Prevention

Doros Constantin, Grosu Stanislav, Robu Victoria

Academic adviser: Svetlana Lozovanu, M.D., Ph.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Primary Anastomosis for Large Bowel Obstruction

Prisacaru Ion, Zastavnitchi Gheorghe

Academic advisers: Gheorghe Ghidirim, M.D., Ph.D., Professor, Academician; Igor Misin, M.D., Ph.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Mother and Child's Care Section

Thursday, May 14, 2008, 09:00

Block 4, Hall 3

Chairman: Petru Stratulat, M.D., Ph.D., Professor
Moderators: Marcela Soitu, M.D., Associate Professor
Zinaida Sarbu, M.D., Associate Professor
Victor Roller, M.D., Scientific Researcher
Olga Cirstea, M.D., Assistant Professor
Secretary: Stratulat Mihai, 1st year Resident, Neonatology

Oral Presentations

Families with Premature Newborns in NICU: Analysis of Needs

Vaskelyte Alina

Academic adviser: Ruta Butkeviciene, M.D.
Kaunas University of Medicine, Kaunas, Lithuania

Extreme Prematurity as Risk Factor for Neurological Outcomes

Miron Anna

Academic advisers: I. Ilciuc, M.D., Ph.D., Professor; Petru Stratulat, M.D., Ph.D., Professor
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Neonatal Persistent Pulmonary Hypertension Secondary to Meconium Aspiration Syndrome. Case Report

Bitir Elena, Moldovan George-Valeriu

Academic adviser: Manuela Cucerea, M.D.
University of Medicine and Pharmacy, Targu-Mures, Romania

Surfactant Therapy for Premature Newborns

Moldovan George-Valeriu, Bitir Elena

Academic adviser: Manuela Cucerea, M.D.
University of Medicine and Pharmacy, Targu-Mures, Romania

Cervical Pregnancy. New Options of Treatment

Cernetchi Irina

Academic adviser: Valentin Friptu, M.D., Ph.D., Professor
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Review on Female Infertility

Petrea Oana, Petrea Irina, Roman Andreea, Cordun Cristiana, Merauta Adnana, Berjas Abu-Gariba

Academic adviser: Lacramioara Butnariu, M.D., Assistant Professor
“Gh.T.Popa” Medical and Pharmaceutical University, Iasi, Romania

Caesarian Section in Intrauterine Growth Restriction (IUGR)

Iliadi-Tulbure Corina

Academic adviser: Gheorghe Paladi, M.D., Ph.D., Professor, Academician
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Clinical Diagnosis in the Case of 4q Trisomy

Lazar Ioanina Sorana

Academic adviser: Vlad Gorduza, M.D.

“Gr.T.Popa” Medical and Pharmaceutical University, Iasi, Romania

Fractures – Dislocations of the Forearm in Children

Danilov Sergiu, Prisacaru Olesea

Academic adviser: Petru Moroz, M.D., Ph.D., Professor

„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Unexpected Outcome in a 16-year-old Patient with Renal Calculus

Boroianu Camelia, Teodorescu Raluca, Petrea Cecilia Maria, Tudorache Anca-Mihaela, Popescu Anca, Dobroslav Vitalie, Carapcevski Anatolie

Academic advisers: Ovidiu Brumariu, M.D., Ph.D., Professor; Codruta Iliescu-Halitchi, M.D., Assistant Professor

“Gr.T.Popa” Medical and Pharmaceutical University, Iasi, Romania

Cryptogenetic Cirrhosis in Children. Case Report

Zarisneac Victor

Academic advisers: Evelina Moraru, M.D., Ph.D., Professor; Bogdan Stan, M.D.

“Gr.T.Popa” Medical and Pharmaceutical University, Iasi, Romania

Particularities of Etiology and Evolution of Acute Peritonitis in Children

Cojusneanu Natalia

Academic adviser: Eva Gudumac, M.D., Ph.D., Professor, Academician

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Poster Presentations

Mother-to-Child Transmission of HIV and Prophylactic Treatment

Luca Lucia

Academic adviser: Victor Pinteau, M.D., Associate Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Public Health Section

Thursday, May 14, 2008, 09:00
Block 4, Hall 2

Chairman: Constantin Etcu, M.D., Ph.D., Professor
Moderators: Elizaveta Reabova, M.D., Associate Professor
Vladislav Badan, M.D., Assistant Professor
Secretary: Hasnas Victoria, 3rd year Student

Oral Presentations

Chronic Disease Management by Preventive Care through Lifestyle Changes (Review)

Taliercio Michael Albert

Academic adviser: Garry Morris, M.D.
University of Malta, Msida, Malta

External Factors of Risk-Management during the ENT-Screening from the Under-School Children with Acuteness Hearing Loss

Capitan Nina, Ferdohleb Alina

Academic adviser: Constantin Etcu, Ph.D., Professor; Chiaburu Anghelina, M.D., Junior Lecturer
"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Management Performance in Primary Assistance

Jucov Artiom

Academic adviser: Ludmila Goma, Associate Professor
"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Tuberculosis in Prisons – Are the Diagnosis and Treatment of an Ensured Quality?

Gheorghe-Guta Anamaria, Nistor Sabina

Academic adviser: Adrian Mocanu, M.D.
"Carol Davila" Medical and Pharmaceutical University, Bucharest, Romania

Medico-Social Aspects of Pregnancy in Women over the Age of 35 Years

Mecineanu Elena

Academic adviser: Larisa Spinei, M.D., Ph.D., Professor
"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Poster Presentations

Violent Deaths in the Republic of Macedonia in 2006

Malinkova Verica, Spirov Goran

Academic adviser: Vesna Spirova, M.D., Ph.D.
Ss. Cyril and Methodius University, Skopje, Republic of Macedonia

Traffic Accidents – a Global Problem?! Alarming Situation in Macedonia

Spirov Goran, Malinkova Verica

Academic adviser: Vesna Spirova, M.D., Ph.D.

Ss. Cyril and Methodius University, Skopje, Republic of Macedonia

Demography and Medicine Indicators of Pediatrician Population

Enachi Victor, Ferdohleb Alina

Academic adviser: Constantin Eto, Ph.D, Professor

“Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Dental Medicine Section

Thursday, May 14, 2008, 09:00
„Toma Ciorba” University Dental Clinic Hall

Chairman: Dumitru Scerbatiuc, M.D., Ph.D., Professor

Moderators: Sergiu Ciobanu, M.D., Associate Professor
Silvia Railean, M.D., Associate Professor
Oleg Solomon, Junior Lecturer

Secretary: Gurin Olga, 4th year Student

Oral Presentations

Inferior Alveolar Nerve Block – a Challenge to be Achieved

Cirimpei Vasile, Vlas Tatiana, Vlas Vasile, Ciobanu Ana

Academic adviser: Sergiu Ciobanu, M.D., Ph.D., Associate Professor
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Treatment of the Facial Plagues without the Need of Sutures

Moraru Oxana, Bicer Constantin

Academic adviser: Dumitru Hitu, M.D., Ph.D., Associate Professor
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Clinical Picture and Treatment of Vertical Dental Migrations on Partial Edentate Patients

Mostovei Andrei

Academic adviser: Mihai Cojocaru, M.D., Ph.D., Associate Professor
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Sinusal Complications of Dental Extraction

Cretu Tatiana, Britchi Alexandru, Moraru Oxana, Stratulat Tatiana, Burduja M.

Academic adviser: Dumitru Hitu, M.D., Ph.D., Associate Professor
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Opalescence - No Problems with Teeth Bleaching

Vlas Tatiana, Cirimpei Vasile, Ciobanu Ana, Ceclu Constantin

Academic adviser: Sergiu Ciobanu, M.D., Ph.D., Associate Professor
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Light Aesthetics in Restoration on Implant with Metal Abutment or on Tooth with Metal Inlay

Porosencov Egor

Academic adviser: Andrei Porosencov, M.D., Ph.D., Associate Professor
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Microbiological Aspects in Dental Caries' Evolution and Treatment

Vlas Haralambie

Academic adviser: Gheorghe Nicolau, M.D., Ph.D., Professor
„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Contemporary Aspects of Functional Impression-Taking with Suction**Oineagra Vadim**

Academic adviser: Ilarion Postolachi, M.D., Ph.D., Professor

„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Eruption of the Wisdom Teeth. Reasons for Extractions, Prevention of Complications**Gurin Olga, Hitu Dumitru**

Academic adviser: Dumitru Hitu, M.D., Ph.D., Associate Professor

„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Bioactive CaP-Coated Implants: Studies and Evaluations**Zahalka Mohamad, Gututui Daniel**

Academic adviser: Vasile Gututui, M.D., Ph.D., Associate Professor

„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Aetiology of Toxic Osteomyelitis of the Maxillaries and their Treatment**Radzichevici Mihail, Lehtman Sofia, Rusu Natalia**

Academic adviser: Dumitru Scerbatiuc, M.D., Ph.D., Professor

„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Callisia Fragrans. Phytotherapy in Treatment of Gingivitis**Britchi Alexandru, Cretu Tatiana**

Academic adviser: Sergiu Ciobanu, M.D., Ph.D., Associate Professor

„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Unilateral Subperiosteal Implant**Alkaissoum Jaber, Khalifa Said**

Academic adviser: Rodica Cosneanu, Junior Lecturer

„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Position of Inferior Alveolar Nerve in Different Type of Mandible Bone Resorbtion**Gututui Daniel, Iurie Marina, Barbut Mihail**

Academic adviser: Gheorghe Nicolau, M.D., Ph.D., Professor

„Nicolae Testemitanu” State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Study about Dimensional Aspects of Teeth and Arcades in Normal and Modified Occlusions**Codrin Varvara**

Academic adviser: Antoanela Beldiman, M.D., Junior Lecturer

“Gr.T.Popa” Medical and Pharmaceutical University, Iasi, Romania

Pharmacy Section

Thursday, May 14, 2008, 09:00

Block 3, Hall 7

Chairman: Nicolae Ciobanu, M.D., Associate Professor

Moderators: Vladimir Valica, M.D., Ph.D., Professor

Livia Uncu, M.D., Associate Professor

Anatol Nistreanu, M.D., Associate Professor

Secretary: Dolghier Sofia, 2nd year Student

Oral Presentations

Study of the Chemical and Physical-Chemical Methods of Analysis of the Metoprolol

Conicov Lilia

Academic adviser: Tamara Cotelea, Ph.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Research of Physical-Chemical Properties and Determination of Quality Parameters for Metipheron

Ciobanu Roman, Tihon Iurie

Academic advisers: Livia Uncu, Ph.D., Associate Professor; Nicolae Ciobanu, Ph.D., Associate Professor

"Nicolae Testemitanu" State Medical and Pharmaceutical University, Chisinau, Republic of Moldova

Chemico-Toxicological Investigations on Metochlopramide

Hangan Mariana, Murzac Igor

Academic adviser: Tamara Cotelea, Ph.D., Associate Professor

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Contribution in Studying Chemical-Toxicology of Aminophylline in Biotransformation Process

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Elaboration of the Technology of Vaginal Suppositories „Raviset”

Plesca Andrei, Tihon Iurie

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Drug Safety: Toxicological and Bioethical Aspects

Cusnir-Federiuc Victoria

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Application of Physical-Chemical Methods in the Chemico-Toxicological Analysis of Ketotifen

Socolan Oleg

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Human Factor in the Use of Medicinal Plants

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Significance of Development of a Paediatric Dosage Form

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Cerebral Malaria – the First and Single Case in Republic of Moldova

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Poster Presentations

Paracetamol Study in the Chemico-Toxicological Test

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Abstracts

Medical Fundamental Sciences Section

Anatomy in the Byzantine Iconography

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Background. The Byzantine iconography is a Holy Art where Jesus Christ, Virgin Mary, the saints, the angels, the prophets and even the persons that could not reach the redemption (for instance demons, Judas Iscariot the apostle) are shown us. If in the Old Testament, The Holy One could not be represented in visual form, which could be dignified for veneration and worshiping, in the New Testament, this "hidden" God was known through His Son who entered in humanity's life as human being. The Byzantine iconography is different from the Renaissance, the stress being on the sacredness side, avoiding the naturalism through the anatomical details and proportion changes of the human body.

Objectives. To analyse the anatomical proportions and details of Saints throughout different eras in history.

Materials and Methods. We have done a systematic analysis of some art and Byzantine iconography containing artistic works from Schools of Mountain Athos and Meteora, from Moravian region, from Novgorod and Pskovul, Andrew Rubliev and Theophanes the Greek Painting Schools, from Patmos, Salonic, Serbia, Bulgaria Schools, and from Macedonian Painting School.

Results. So, in that new orientation of Christendom's spirituality, the human form is not anymore appreciated for his beauty, but for his divine side. Although Byzantine icons represent artistic anatomy, theology and anthropology, Byzantine Art was misunderstood for centuries, roughly interpreted and this even in some orthodox countries. In reproducing of a Holy Person, Byzantine iconography uses a series of systems measure presented in paper. So that although anatomical proportions are modified, a Saint is never badly represent. Interesting is the fact that from Kretschmer classification of constitutional type, in Byzantine painting

is found only asthenic (predominant) and the normosthenic type; hypersthenic type missing because of the ascetical life of persons represented in icons. Furthermore, Byzantine iconography uses the principle of dematerialization, and does not stress on secondary sexual characters; making evident the face, which is actually the center of representation. With time, Byzantine painting suffered also influences. By the way, if in the XIIth century Jesus Christ the Saviour was represented in icons or on the church's walls under oriental influences, with a heavy aspect, with the length of the head representing the seventh part of the body, in the XVth century, in Russian Painting School, the inferior limbs are elongated in order to show better the holiness and to transcended to Supreme Father. Also, the face presents a series of specific characteristics for Byzantine iconography: smooth skin, without folds or wrinkles (faces complexion in "Byzantine icon", met in scleroderma), lofty forehead, with prominent bosses (expresses the Power of The Holy Spirit), disproportionate eyes, with lagophthalmos (to transmit the veneration and the awe to onlooker), thin nose, enlarged auricular concha, all that having a role in express sacredness of human senses, etc.

Conclusions. In reproducing of a Holy Person, Byzantine iconography uses a series of modular measure systems. Anatomical proportions are modified, the principle of dematerialization is used and the anatomical surface details of face are accentuated. Secondary sexual characters are not emphasized. It is remarked some classical important strokes: clarity, measure (reserve), emphasized through the avoidance of emphatic gestures and movements, simplicity, grace, symmetry and equilibrium.

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Leflunomide Effects in Experimental Chronic Arthritis

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Background. The chronic inflammatory rheumatic disease, along with cardiovascular disease and cancers, represents the first cause of morbidity in the world. Between these, rheumatoid polyarthritis constitutes through gravity of evolution and of motor handicap a permanent challenge for current doctors. The big costs of treatment impose the finding of new being late and stopping methods of articular inflammatory phenomenon. One of new drugs from DMARDs (disease modifying drugs) is Leflunomide, an immune response modulator that proved efficiency in long time treatment, but that secondary effects were less studied.

Objectives. Our study consisted in an articular chronic inflammation induction at male sex Wistar rats, and monitoring for a long time the Leflunomide effects regarding clinical and paraclinical evolution of these.

Materials and Methods. There was induced a chronic arthritis through injection in 8 weeks with carrageenan 1%

solution in tibio-femoral articulation and Leflunomide was administered through gavage. At the experiment's end were drawer fragments from articulation, and also from liver, kidney and heart for evidence of eventual secondary effects of Leflunomide and carrageenan 1% administration.

Results. Clinical aspects of chronic inflammatory arthritis were confirmed through radiological (RX), biochemical (fibrinogen and ceruloplasmin), immunological (IL-1 β), osteodensitometrical (DEXA) and anatomopathological examinations.

Conclusions. For the first time in the specialist literature, was evidence the toxic effects of Leflunomide for heart. Leflunomide ameliorated clinical and paraclinical (biochemical and radiological) evolution of affection but did not cure the disease.

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Contribution to Morphoclinical Study of Intramyocardial Topography of Coronary Arteries

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Objectives. To present the morphoclinical particularities of intramural course of the large coronary artery segments (ICLCAS).

Materials and Methods. The macroscopical study was realized on 52 isolated human formolized hearts; microscopically—we studied transversal sections through the musculo-vascular complex coloured with hematoxylin-eosin and with picrofuchsin by van Gieson (10 objects). The clinical study was realized on 200 coronarograms of those patients who did not have any heart congenital or acquired anomalies, or the heart arteries atherosclerosis.

Results. According to the musculo-vascular interrelation, we distinguished three variants of ICLCAS: complete, incomplete myocardial bridges (CMB, IMB) and muscular tunnels (MT). In the case of CMB—a coronary artery segment is covered by a muscular tissue stripe with transversal direction; IMB unclasps the vessel only from three parts. In myocardial tunnels, the artery gets in intramuscular course with deepening tendency, without appearing on the surface of the heart. ICLCAS coronarography detection bases on the systolic underbridged vessel narrowing with retrograde blood evacuation, not all ICLCAS can be visualized angiographically. The correlation between anatomic and coronarography incidence of CMB is approximately 50/2 %. ICLCAS expressivity depends on the thickness, structure, contractile capacity of the myocardial stripes, which cover the vessel. Histological study revealed important information about intramural perivascular, neuro-vascular and conjunctive components.

This information is of a great importance in cardiovascular surgery—one of the methods of treating the symptomatic CMB is myocardial bundle myotomy. A great number of perivascular nervous fibres need attention in choosing myotomy as a method of treatment. CMB can be implicated in the appearance of ischemia, myocardial infarction and others. The elevation of intravascular pressure in the blood vessel portion, which is proximal to bridge during heart contraction, is due to retrograde blood flow; this can delay myocardial blood supply (during tachycardia) and can play an important role in atherosclerosis of this region of the vessel. During microscopic investigations, we revealed some structures, which can passively protect the underbridged portion of the artery against systolic narrowing. These structures are: abundant conjunctive perivascular tissue, thick adventitia, regional circular orientation of the collagen fibres at the limit of perivascular space. We observed an important deformation and narrowing of the vessel under the myocardial bridge, even in heart relaxation: this can play a critical role in turbulent blood flow genesis in the proximal to bridge and underbridged portions of the vessel, an effect that can influence the integrity of the intima and rheological properties.

Conclusions. Our study confirms the frequent implication of the vessel portion, which is proximal to bridge in atherosclerosis.

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Changes in Structure of the Human Cerebellum in Alcohol-Narcotic Intoxication

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Background. Drug abuse is unquestionably a leading social and health problem in our current era. It is important to note that there is a sharp increase in use of various psychoactive substances and thus more cases of combined intoxication. Among them, alcohol and opioids are in the majority. One of the clinical signs of alcohol intoxication is motor coordination and balance disorder. It results from high sensitivity of the cerebellar cortical cells to toxicants.

Objectives. To study structural changes in the cerebellum in different kinds of alcohol-narcotic intoxication.

Materials and Methods. We have carried out a post-mortem autopsy on 19 corpses with chronic use of alcohol, opioids and their combination. Materials are obtained and approved by the Crimean Republic Bureau of Forensic Medical Expertise. Autopsies are carried out within 24 hours after death. Macroscopic and histological methods are employed in our research. All samples are studied with the aid of the optical microscope «Olympus CX-31» and digital camera «Olympus C5050 ZOOM».

Results. The salient macroscopic features are insignificant morphological signs of oedema and swelling of the white and grey matter. On the surface and sections, the cerebellum appears normal. Under the light microscope, the cerebellar

cortex is represented as screen-like nervous centre with highly ordered distribution of the ganglionic layer. In isolated alcohol intoxication, the ganglionic layer is strikingly rarefied, which is attributed to a reduced number of Purkinje cells. Besides these alterations, the neurons are seen without satellite cells filled with optically dense cytoplasm. In chronic narcotic intoxication, Purkinje cells are rarely found and deprived of oligodendroglia. These cells do not form a layer and look swollen with pyknotic changes in the nuclei. Focal haemorrhages are observed in the granular layer. The ganglionic layer is almost absent in combined alcohol-narcotic intoxication. The white matter becomes congested with blood and is oedematous. Karyopyknosis occurs in the granular layer. There are no changes in the molecular layer.

Conclusions. As compared with the control groups (isolated intoxication with alcohol or opioids), there is a significant reduction of Purkinje cells and absence of the ganglionic layer in combined intoxication. These findings demonstrate the direct toxic effect on screen-like nervous centre of the cerebellum and thus the possible cause of discoordination.

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Morphological Changes in Components of the Blood-Gas Barrier in Acute Alcohol Intoxication

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Background. About 30 000 people die from acute intoxication with ethyl alcohol and its surrogates yearly. In view of this public-health menace, a study of morphological changes of the lungs in acute alcohol intoxication is important. The lungs are the main organ, where unchanged ethyl alcohol and its metabolites are excreted. Thus, they play a pivotal role in thanatogenesis.

Objectives. To study reactions of structural components of the blood-gas barrier (BGB) to acute intoxication with ethanol.

Materials and Methods. Comparative studies are performed between 40 laboratory white rats and samples of 65 corpses with acute alcohol poisoning. The deceased individuals are 27–55 years old with high blood alcohol content (BAC) ranging from 5.12–8.44 ‰. Histological and immunohistochemical methods are employed in our research.

Results. Experimental results reveal that reversible changes of the BGB develop 15 minutes to 12 hours after acute alcohol intoxication. These changes are characterized by progressive hemodynamic disorders with development of interstitial, intraalveolar and intracellular oedema of the cells composing the BGB. Irreversible process predominates after 12 hours of acute alcohol intoxication, is viewed as destructive changes of the endotheliocytes, of capillaries in the interalveolar septa, and type I alveolocytes. Death and desquamation of these cells occur in the basal membrane of the alveolar lumen. Reversibility degree of changes in the BGB components is determined by

synthesis level of surfactant-associated proteins (SP-A, SP-B and SP-C), their distribution in intraalveolar surface and cells composing the barrier. In this case, SP-A and SP-C synthesis in type II alveolocytes is deranged. This contributes to slowing down of SP-B synthesis. Compensatory changes in acute alcohol poisoning are characterized by raised functional activity of type II alveolocytes and accelerated macrophage migration. By comparing two series of observations (rat lungs in acute alcohol intoxication and lung samples obtained from corpses with acute alcohol poisoning), there is a similar tendency suggesting morphological disturbances in the BGB components. In both cases, negative influence of alcohol on the BGB is identical.

Conclusions. The dynamic changes can be divided into reversible and irreversible oedematous-destructive processes; and compensatory process. Morphological changes of the BGB in acute alcohol poisoning resemble those in adult respiratory distress syndrome (ARDS) of non-alcoholic origin. This permits us to put forward a separate nosological unit—alcoholic ARDS. ARDS has a tendency to develop earlier in acute alcohol intoxication due to the detrimental effect of ethanol and its metabolites to the alveolar surface. Keywords: Blood-gas barrier, acute alcohol intoxication, morphology

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Conduction System of the Heart - Comparative Study

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Background. Heart conduction system is an architectural complex based on a group of special cells, which ensures the rhythmic activity of the heart, indispensable for life. It is composed of four essential structures: sinoatrial node-Keith and Flack, atrioventricular node-Aschoff-Tawara, Hiss Bundle and Purkinje fibres. The system represents a structure with an undefined embryological origin and a problematic histological identification.

Objectives. To identify and to compare the specialized cells of the conduction system.

Materials and Methods. Transversal sections through the interventricular sept and the right atrium were obtained from a five months aborted foetus, prepared with 9 % formaldehyde solution, after classical dissection. The heart preparations were mapped. The colorations used were Hematoxylin-Eosin, Argental Impregnation, Red Sirius, Tricrom Masson. The maps

were compared with the other cells from the adult heart, preliminary fixed in a 5% formaldehyde solution. A statistical study was made using brute dates from the Institute of Heart "Nicolae Stancioiu" Cardiovascular surgery section.

Results. The cells of the conduction system of the foetus heart were identified and compared with the adult cells. It was realized a morphological comparative study. The frequency of the surgery interventions using artificial pacemakers, were represented statistically.

Conclusions. The conduction system has cells, which remain unmodified during the life. The cells have a specific position near the arteries, which ensures their functionality. The cells dysfunction is responsible for the heart attack at the interventricular sept level.

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Connection between the Plasma Homocysteine Levels and the Progression of Atherosclerosis

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Background. Atherosclerosis is a disease affecting arterial blood vessels. It is a chronic inflammatory response in the walls of arteries, in large part due to the accumulation and promoted by low-density lipoproteins without adequate removal of fats and cholesterol from the macrophages by functional high-density lipoproteins. It is caused by the formation of multiple plaques within the arteries. Homocysteinemia is defined as elevation of homocysteine level in blood. It is caused by a disorder of the methionine metabolism, leading to an abnormal accumulation of homocysteine and its metabolites in blood.

Objectives. This study emphasizes the importance of considering homocysteine levels of the patients when studying the risk factors implied in atherosclerosis. The purpose of this study is to bring information regarding a risk factor in the process of atherosclerosis, which is not widely known or considered.

Materials and Methods. To outline the link between the risk factors and the developing of atherosclerosis, the studies I am going to present have considered the levels of homocysteine, serum lipids, ultra sensitive-CRP, EBT calcium scoring and circulatory cell adhesion molecules.

Results. It was emphasized that hiperhomocysteinemia

and mild hypertriglyceridemia are directly connected to the increase levels of the circulatory cell adhesion molecules (such as P-selectin, E-selectin, VCAM-1, ICAM-1), and thus to the inflammatory activation of the endothelium. Studies undergone have shown that the levels of plasma homocysteine strongly predict the progression of coronary plaque burden. Thus, it was demonstrated that the elevated levels of HCY (>12µmol/L) suggest an increase in coronary calcium progression (35% per year) comparing to the median levels (<12µmol/L) of HCY (17% coronary calcium progression per year). It was also showed that the ginseng compound Rb1 can effectively block Hcy-induced dysfunction of endothelium, thus having a potential clinical applications in controlling vascular diseases and lesions.

Conclusions. Considering the levels of homocysteine when studying the risk factors in atherosclerosis is undebatable. Moreover, further studying of the mechanisms that generate the development of atherosclerosis, based on the homocysteine levels, should be conducted. Thus, finding means in stopping the negative effects of increased levels of homocysteine may improve the evolution of different vascular lesions.

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Appreciation of Molecular-Genetic Markers in Genetic Analysis of Hypertension in Republic of Moldova

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Background. According to data provided by WHO and Ministry of Health of Republic of Moldova, cardio-vascular diseases have a high incidence, are responsible for frequent morbidity, invalidity and mortality in human. A number of diseases like essential hypertension, heart failure, and stroke produce serious consequences and determine considerable economical losses. Identification of high risk genes involved in hypertension will allow early diagnostic of disease in different populations.

Objectives. This study will offer the possibility to use new methods of treatment and to organize medical management and prophylaxis. Moreover, knowledge of genes responsible for hypertension in each patient will permit individual treatment depending on genotype.

Materials and Methods. Our analysis was focused on three genes involved in blood pressure control—ACE (angiotensin I converting enzyme), AT1 R (angiotensin II type I receptor) and NOS (nitric oxide synthase). We studied the distribution of the polymorphisms II, DD, ID of the ACE gene, AA, CC,

AC of the AT1 R gene and GG, TT, GT of the NOS gene in people affected by essential hypertension and non-affected from the population of Republic of Moldova. 100 individuals, including 38 men and 62 women were analyzed. There were 85 hypertensive patients (33 men and 52 women) and 15 non-hypertensive individuals as control. The mean age of analyzed persons was 57,2 years (21-84 years). Analysis of the DNA polymorphisms was performed by use of the polymerase chain reaction technique (PCR). Based on the results of PCR analysis, for each gene was studied the association of polymorphisms of DNA fragments and hypertension taking into consideration differences between case and control groups as well as males and females.

Conclusions. We determined that DNA polymorphisms for analyzed genes might be used as genetic markers in case-control studies using other genetic and non-genetic factors.

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The Normal Gut Flora - Interactions with the Human Body

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The normal flora is represented by all the microorganisms, which colonize the human body during the lifetime of each individual. The less understood part of our organism has very important functions: physiological, nutritional and a protective role. The system is very complex and it hides mechanisms, which influence the human anatomy, physiology and pathology. The presentation resumes the most interesting functions of the normal gut flora and its interactions with the human body. It was built using the latest worldwide discoveries in microbiology. Those studies illustrated the importance of the normal flora in the development of the human immunity,

in the prevention of allergies, in the protection against pathogens, in the determination of each individual's weight. Interestingly, bacteria have their own "immune system" and respond in a very particular way to substances present in the human body. Of great importance is also the problem regarding the inflammatory bowel diseases (e.g. Crohn Disease, ulcerative colitis), of unknown etiology. I think the information presented in my work would be useful to complete the knowledge in microbiology and infectious diseases of the medical students and young doctors.

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Ethical Considerations in Embryo Stem Cell Utilization (Review)

Oineagra Rodica

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Is it possible to justify every research authorization of the stem embryonic cells? Is it indispensable the therapeutic cloning for the study in the world? Is it not enough the adult stem cells for all the therapeutic perspectives and economical promises? On all those questions, laws or rules of the bioethics is based this review. In the first side, are presented the news concerning any research in this domain of the human embryonic stem cells. Stem cell research is important in the field of different disease because certain cells in the human organism can be damaged and result with their degradation. Stem cells have been used in various kinds of treatments, and have potential to develop into the keys of one new regenerative medicine. The availability of those cells for this kind of transplantation would benefit people with degenerative disease such as Alzheimer, Parkinson, Huntington's chorea, retinitis pigmentosa and hemopathies or even cancer. Its damage but the absence of one or more practical case is due of the legislation. For this reason, the second part represents the analysis of the juridical and ethic goals concerned the use of human stem cells. In this way, the debates are coordinated by the philosophical, moral and religious contexts based on the nature of the human life and on it respect, from the beginning until the end. Therefore, the question is to know if it is ethical

to accept to use the technique of the somatic core transfer just for acquiring embryonic stem cells with therapeutic purposes. In fact, the accent is based on the different kind of laws used now in the countries of the world, as any other juridical acts elaborated at the moment in this context. Actually, between those countries there are big differences, because one part of them at the moment didn't elaborate the juridical relative context for the research of the human embryonic stem cells; in the same time another countries have their own various positions. So, all of those factors affect the whole situation in the world. However, now the society becomes the space where the progress of the bioethical laws is build beside the protections of the fundamental dues. This one does not make that we forget that Europe like the whole world represents a cultural community where the construction of a bioethical law is the reason of complicated tensions—the same relatives questions concerning the human embryo, like the embryonic or stem cells research. Based on those facts, at the end, the conclusion of this review will show the scientific ways that could be adopted by the young generation in the future of the medicine.

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Efficiency of the Antioxidants in a Common Use

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Antioxidants (AO) are complex substances that give electrons to the free radicals and stabilize them. These radicals represent molecules and atoms with uncoupled electron. These cause their instability and have the tendencies to change the metabolism of the cell until its death. The main sources of radical are endogenous (fats, acids oxidation in cytoplasm, etc.) and exogenous (X-rays, microwaves, toxic metals from water, exhaust flatulence, etc.). AO prevent the accumulation of the radicals in the calls that are slowly regenerating. In this case are used AO with a wide spectrum of action and the natural ones are more active than the synthetically ones. The more useful natural AO are carotinoïdes, vitamins (E, A, C, etc.) and phicocianin of seaweed. Phicocianin has a chemical structure analogous to bilirubine and has strong neutralizing effects of reactive species of oxygen. The experimental administration

on animals brought to inhibitory of cancerogenesis and activation of erythropoesis and limphopoesis. After an experiment with 2,6-diclorophenolindophenolat in acid medium, used as radical, and vitamin C with phicocianin as AO, proved that combination of twice and more AO substances have double effect (synergetic) and at the same time they protect erythrocytes more better than single of them. The efficient couple of AO are ascorbic acid with phicocianin and ascorbic acid with mixoxantophil from carotinoïdes. At the end, the AO systems are activating in certain stages, are metabolically interconnected in order to assure their regeneration: have low specificity that assures their efficiency.

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Hemocystine – Coronarian Risk Factor

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A possible atherogenic role of homocystine was first mentioned half way into the last century. The processes of premature atherosclerosis, thromboembolism and mental retardness in two infants suffering from homocystinuria were discovered then. Although severe hyperhomocysteinemia and homocystinuria are rare diseases, moderate homocystinemia affects around 5-7% of the general population. The moderate increase in plasmatic homocystine is an independent risk factor in premature cardiovascular disorders. Homocystine (HCy)

is a thioaminoacid, which results from the demethylation of methionine. It is an extremely reactive and toxic compound, especially to the vascular endothelium. The toxicity mechanism is not completely elucidated, but it is widely known that this amino acid moderates the self-oxidation of the lipoprotein particles LDL, initiating the process of thrombosis and atherogenesis (formation of atheromata in the walls of arteries.)

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Influence of S-alchilizitiuretic Derivates on Oxygen Use

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Objectives. To study the actions of S-alchilizotiuretic derivates of use the oxygen on the body.

Materials and Methods. The Izoturon and Profetur action on use the oxygen on the body was made on 34 rats (weight 180-270g), with the S.V. Miropolski (M.J. Пылова, 1964) device. The experience animals were distributed in three groups: I group-control (10 rats); II group-Izoturon 20mg/kg (12 rats); III group-Profetur 20 mg/kg (12 rats). The experience scheme was the following: It was determined the initial use of oxygen. The examined drugs were dissolved in physiological solution, and then inserted intraperitoneally at the experienced animals. After certain time intervals, it was determined again use of oxygen.

Results. The insertion of Izoturon and Profetur in dose of 20 mg/kg intraperitoneally at rats was manifested through the reduction use of oxygen for Izoturon for a period of 60-90 minutes, and Profetur till 150 minutes. Maximal reduction of this index, it was remarked at 10 minutes after drugs insertion (with 31% of initial use), and for profetur this maximal reduction was remarked at 90 minutes (with 35% of initial use).

Conclusions. Izoturon and Profetur reduce the use of oxygen in the body.

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Influence of Inductor and Suppressor Enzymes on Sleep Induced by Barbiturates

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Background. Barbiturates are metabolized prevalently in the liver with the participation of cytochrome P450, especially the isoforms 3A4. From these reasons, the substances with ultra-short duration (hexobarbital, thiopental, etc) are used as pharmacological tests for determination of the influence of new substances on the function of the liver by modifying the duration of the barbituric sleep.

Materials and Methods. With this purpose in the studies on mice and rats, it was studied the influence of Phenobarbital, Ketoconazol and Imunopurin on the thiopental sleep, after 7 days. The experiments were made on 27 mice. The mice were split in 4 groups: 1st group-control; 2nd group-Phenobarbital 1mg/mouse; 3rd group-Ketoconazol 1mg/mouse; 4th group-Imupurin 1mg/mouse.

Results. The results relieved that at the mice from the control group, the duration of the sleep after the intra-peritoneum administration of the sodium thiopental in dose of 75mg/kg was approximately 85,6 min. The sleep, at the mice that were injected

for 7 days Phenobarbital in dose of 0,5mg/10g, was approximately 59,4 min. In the groups that were injected for 7 days Ketoconazol and Imupurin, then sodium thiopental, woke up 2 out of 7 mice (Ketoconazol) and 1 out of 8 mice (Imupurin), and after 12-24 hours these mice died too. It is important to mention that the latency of induction of sleep at the 3rd and 4th group was 3-8 min, while at the 1st and 2nd group the sleep was induced after 5-20 min.

Conclusions. The analyses of the obtained results permit us to conclude that Phenobarbital, because of the enzymatic induction, at repeated injection shortens the barbituric sleep, by accelerating the inactivation of the sodium thiopental. The Ketoconazol, known as an inhibitor of the microsomal enzymes, diminished the metabolism of thiopental, with the increase of the action duration and toxicity of the barbiturate. Similar effect to Ketoconazol, had the entomological substance Imupurin, that possibly by inhibition of the thiopental metabolism in the liver, amplified the effects of the barbiturate, including the toxic effects.

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Antibiotic Susceptibility for Nasal and Pharyngeal Bacterial Strains Isolated from Medical Students

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Objectives. To observe the colonization status and antibiotic susceptibility for microbes with nosocomial potential among medical students at “Carol Davila” University of Medicine in Bucharest. Based on observation and experiment, our study’s main goal was to point out the presence of certain species of bacteria with high potential of pathogenicity in the upper respiratory tract of the subjects. The microbial carriage among medical staff, especially those working in surgical departments, could represent a hazard for patients. Lack of antibiotic susceptibility would represent a supplementary threat.

Materials and Methods. The study was conducted on sixty 2nd year medical students during June and July 2007. Both nasal and pharyngeal swab cultures were collected and processed in order to establish the carriage state for each participant. The used culture media were Blood Agar, Chocolate Agar, McConkey Agar and Sabouraud, which yielded bacterial colonies in 24 to 48 hours.

Results. The following data were obtained: 22 (36.66%) of the 60 subjects were *Staphylococcus aureus* carriers, 2 subjects (3.33%) were *Klebsiella pneumoniae* carriers, 29 (48.33%) tested positive for non-A Hemolytic *Streptococci*, 10 (16.66%)

subjects were *Candida* spp. carriers. 4 (6.66%) were *Neisseria* spp. carriers. In order to test the antibiotic susceptibility of the microbial species with high potential of pathogenicity, antibiograms were performed for all *Staphylococci* and *Klebsiella* isolates, which showed some interesting results. Both *Klebsiella pneumoniae* isolates were susceptible to Gentamicin and Ofloxacin, but proved resistant to Ampicillin. Out of 11 *Staphylococcus aureus* strains tested for susceptibility to Penicillin, 10 (90.9%) were resistant to this first-line drug and 18 (85.71%) out of 21 *S. aureus* isolates showed resistance to another commonly used antibiotic, Ofloxacin. However, all tested *Staphylococci* strains were susceptible to Clindamycin and Trimethoprim, which are used nowadays to treat infections with penicillin-resistant *S. aureus*.

Conclusions. The data of our study emphasize the importance of a good surveillance system concerning the microbial carriage in the medical community (including the alumni), in order to prevent doctor-doctor or doctor-patient transmission of infections, which could result in medical complications.

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Medical Alternatives to Blood Transfusions

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Blood conservation has become a highly desirable goal in all medical/surgical procedures. Use of allogeneic (donor) blood products can be reduced or avoided by the systematic and integrated use of appropriate blood conservation strategies. These strategies exploit combinations of pharmaceuticals, readily available equipment, and medical/surgical techniques. When combined, the effects are complementary and cumulative. The medical team must also share a commitment to avoiding the use of allogeneic blood. Avoidance of allogeneic transfusion is facilitated by an individualized plan of care covering the entire treatment period. Key considerations include: (1) identify and address transfusion risk factors as early as possible, (2) minimize blood loss and make optimal use of autologous blood, (3) enhance haematopoiesis.

This Essay outlines the wide range of medical alternatives that can be used to optimize blood conservation and realize bloodless medicine and surgery;

- Pharmacologic alternatives haematopoietic agents (to stimulate blood cell growth and development); Haemostatic agents (to promote clotting); Outlook for recombinant products; Nonblood volume expanders; Oxygen-carrying blood substitutes;

- Blood conservation devices and equipment: Haemostatic surgical instruments; Minimally invasive surgery; Blood recovery/salvage devices; Minimally and noninvasive blood diagnostic and monitoring systems; Clinical oxygen delivery systems (hyperbaric oxygen-HBO) (HBO therapy is the medical use of intermittent doses of 100% oxygen at increased atmospheric pressure to a patient in a sealed environment in order to substantially increase the level of oxygen dissolved in the blood plasma);

- Medical and surgical techniques: Preoperative planning; Prompt surgery; Meticulous surgical haemostasis; Mechanical occlusion of bleeding vessels; Arterial embolization; Controlled hypotension/hypotensive anaesthesia; Controlled hypothermia; Prompt restoration of normothermia; Acceptance of lower haemoglobin levels; Minimization of bleeding risk - autologous techniques;

- Status of recombinant products (Erythropoietin, Epoetin beta, Epoetin gamma);

- Status of oxygen therapeutics (products: Perflubron, Oxyfluor, PHP, Hemolink, PoliHeme);

- Minimally invasive surgery;

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Recreational Consumption of Dextromethorphan – Pharmacoepidemiologic Study

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Background. Dextromethorphan is the dextrogyr isomer of 3-metoxi-N-metilmorfinan and it is a non-narcotic antitusive substance with systemic action. The levogyr isomer has an analgesic response and can lead to addiction.

Objectives. To investigate some aspects regarding the use of dextromethorphan in young people.

Materials and Methods. This study represents a pharmacoepidemiologic evaluation and it is based on a questionnaire applied to a number of 120 persons with ages between 12 and 24 years old, over a period of two weeks. The

questionnaire has a set of 13 questions regarding category of age, the purpose of using, the quantity and the frequency of use.

Results. Analysing the questionnaires revealed that among the questioned population the use of dextromethorphan is wide spread probably due to its relative low cost and the easy way of obtaining it. It is noticeable that the majority of the users are part of the 16-19 years old category. The questionnaire shows that the purposes of use, with alcohol association, are euphoric, anxiolytic and analgesic effects.

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Effect of Estradiol on Denudated Endothelium Induced by Homocysteine in Male Rats

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Objectives. To investigate whether estradiol may reduce the risk of accelerated arteriosclerosis due to elevated level of serum homocystein.

Materials and Methods. For this study, a number of 36 Wistar male rats were used. The animals were divided into 3 groups, each group subdivided into 2 subgroups as follows: 12 rats were treated with placebo (P), 12 were treated with 1 mg (1E) 17 beta-estradiol and 12 were treated with 2 mg (2E) 17 beta-estradiol. Half of the animals from each group were administered homocysteine (Hcy 100mg/kg/day) in the drinking water for 60 days (P/Hcy, 1E/Hcy, 2E/Hcy). The assessment of endothelial function was established by determining the relaxation response of the aortic ring segments to ACh (acetylcholine). The eventual histological changes were established by the use of hematoxylin-eosin stained sections of rat aorta.

Results. The results showed a reduction of relaxation to ACh in rats P/Hcy compared to P (15.7 +/- 4% compared to 96.3 +/- 7%, P<0.001), but the estrogen dependent relaxation was almost completely restored in the 1E/Hcy and 2E/Hcy rats (86.8 +/- 9%). Histological examination revealed endothelial denudation in P/Hcy while the endothelial structures of the aorta from the 1E/Hcy and 2E/Hcy appeared normal. In addition, blood level of hydrogen peroxide in 1E/Hcy and 2E/Hcy remained low while it was raised significantly in P/Hcy compared to P.

Conclusions. These data suggest that the ultrastructural changes and impaired function of the endothelium are at least partially reversed by estradiol, which may have dramatic implications in revealing mechanisms of accelerated arteriosclerosis and the beneficial effects of estrogen therapy.

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Modifications in Biochemical Parameters in Experimental Nephropathy Induced by 1,2-propanediol

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Background. In the last 15 years, the rate of renal disorders in Moldova and in the world denotes a considerable elevation.

Objectives. To evaluate the biochemical effects that occur in nephropathy induced by the administration of 1,2-propanediol.

Materials and Methods: Eight pedigree white laboratory rats weighting 260-320 g were divided into two groups: the control group consisting of 3 intact rats and a second group composed of 5 rats with experimental nephropathy developed after the administration per os for a period of 14 days of 1, 2-propanediol 40g/l (4%). The animals were sacrificed by decapitation after a light anesthesia with ether. The blood was collected and the serum was separated by centrifugation at 1500 revolutions per minute for 10 min. With Elitech diagnosis there were determined the mineral substances such as K, Mg, Ca, Pi, lactate and albumin while the total protein was estimated by the Lowry method.

Results: In the examined nephropathy model there were

detected insignificant modifications in the quantity of calcium (decrease of 2, 73%), magnesium (increase of 0, 05%) and chloride (decrease of 4, 65%) levels. An elevation in the amount of inorganic phosphorus (50, 74%) and potassium (27, 1%) was determined. The quantity of the lactic acid denotes a major elevation with 35, 21%. The amount of both total protein and albumin marks a decrease of 17, 50% and 22, 7% accordingly.

Conclusions. (1) The results indicate a deterioration of the mechanisms of filtration, reabsorption and secretion, with ionic blood equilibrium changes (increased values of inorganic phosphorus, potassium). (2) Perturbations to the glomerular filter lead to hypoproteinemia, mainly hypoalbuminemia. (3) In the experimental nephropathy metabolic acidosis develops (the level of lactate raises).

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Obtaining Methods of Insulin-Producing Cells (Pancreatic-Beta Cells) and Transplantation Methods in Type 1 Diabetes Mellitus

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Background. Diabetes mellitus is the most common disease and its death rate ranks the eighth in the world. There are 4000 persons with type 1 diabetes in Republic of Moldova. Every year the number of these patients increases with at least 100 persons, mainly by the children of preschool age. Financial costs for treatment for 4000 persons per year is at least 120 000 000 MDL. Moreover, each year the cost will increase with 3 000 000 MDL.

Objectives. To optimize the methods of isolation and elaboration of an appropriate transplantation method of pancreatic-beta cells.

Materials and Methods. Pancreatic-beta cells were extracted from the pancreas of experimental animals (rats, rabbits), by mechanical-enzymatic separation, stationary collagenase digestion and discontinuous dextran density gradient purification. Then, we performed transplantation of insulin-production cells obtained from pancreas, to the experimental animals (rats, rabbits).

Results. This research is at a beginning level. We studied methods of separation and transplantation of pancreatic beta cells. The cell culture of pancreatic tissue was obtained from the three animals (rats). This tissue was centrifuged at 200 g, for 1 minute, at a temperature between 5 and 10°C, and only tissue from the highest point from conical tubes was collected and then, seeded in Hanks nutritive solution. This tissue will be studied in the proximate time.

Conclusions. This scientific research allows optimization of the methods of isolation and elaboration of beta-cell transplantation, which will have hormonal capacities and regeneration potential. Therefore, beta cell transplantation could be applied in medicine as a new approach for treatment of type 1 diabetes.

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Objective Findings and Clinical Diagnosis in Reflex Sympathetic Dystrophy

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Reflex sympathetic dystrophy syndrome (RSD) represents a morbid state to include multi-symptom description, affecting one or more extremities with a synchronic impact on several systems. RSD is often declared as a peripheral nerve injury or soft tissue primary lesion that does not heal properly in time and ignore steps of recovering. The syndrome does not correlate with the damage magnitude or periodicity being possible to provoke by slight physical actions ones like minimal voltage uptake or common mechanic mishaps regarding the osteomuscular parts. Other etiology remarks are infections and repetitive motion disorders with cumulative aspects.

Knowing the stages, that regard installation progress among being signs, as onset of severe pain on the respective site, together with increased sensitivity of skin to touch and swelling of the area, followed by the diffusion and worsen of pain in the region, changes of hair and nail growth and at last the appearance of skin, bone and muscle wasting, become a important predictor of RDS taking place.

These general findings may list among objective illustrations like movement inability, evident bottom up and changes in the tissue's exterior field and viability. Pain specificity is bound to burning and deep aching features occurring constantly and perceived as increasing with each tactile stimulation of the skin. Changes in the skin lead to a shiny or dry aspect, also including disorders as ulcers and rashes, together with fast growing of nails and thicker hair. There are reported sudomotor and pilomotor modifications as well as spots to differ by temperature and colour.

Oedema is usually beyond the painful limits with a distinction of sharply demarcated line along the hurting borders. Movement misbalance may be a consequence to direct inhibition of muscle contraction with difficulties in the initiation of repositioning the limb. In addition, sudden cramps in association with tremor and involuntary jerking can lead to complete temporary incapacity of the muscle tone, often misjudged with psychogenic disorder. There are also spreading patterns like the continuing type when the symptoms spread upward, mirror – image type when they appear at the opposite limb and the independent variant if it shows at a distant region of the body.

From laboratory aids can be mentioned skin temperature testing measured other than tactile perception by surface thermistors and hand-held infrared thermometers to conclude hyperaemic phase in early stage of RSD and cold shades during the course of RSD considering an asymmetry cut-off of 0.8-1.0°C as positive information provider. Sudomotor function testing emphasizes quantitative difference using chemical agent for stimulated sweat output as a determining value towards the diagnosis presumption. Electromyography and nerve conduction studies are typically within the reference range in RSD to identify the abnormalities involved. Other issues to observe are sensory testing criteria, laser imaging of segmental autonomic functioning and diagnostic sympathetic ganglion block.

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Congenital Nephrotic Syndrome of the Finnish Type. Case Report

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Background. Congenital nephrotic syndrome of the Finnish type is a rare autosomal recessive disease with a high infant mortality without aggressive treatment, caused by a mutation of the NPSH1 gene which encodes nephrin, a key component of the podocyte slit diaphragm.

Case report: We present you the case of a 2 years old patient initially admitted in our clinic at the age of 2 months and a half with hypertension, massive edema, severe proteinuria, hypercholesterolemia, profound hypoalbuminemia and hypogammaglobulinemia. After having the renal biopsy puncture the first diagnosis was minimum lesions congenital nephrotic syndrome. DNA tests were done and it was found a deletion at the intron 21 of NPSH1 gene in homozygous form leading to the diagnosis of congenital nephrotic

syndrome of the Finnish type. It was performed a unilateral nephrectomy that had as effect reducing blood pressure and proteinuria without reaching the normal limits. The only therapeutically option is total nephrectomy and dialysis until a renal transplantation can be considered. Genetic analysis of the parents revealed that they are the healthy carriers of the same mutant gene.

Discussions. The particularities of this case are represented by the rarity of congenital nephrotic syndrome of the Finnish type in our geographical zone and also the possibility of having genetic diagnosis witch can lead to a radical therapeutically attitude.

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Internal Medicine Section

Treatment with Pacovirin in Viral Chronic D Hepatitis

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Objectives. To study the treatment efficiency of Pacovirin in viral chronic hepatitis D. The drug “Pacovirin” has a vegetative origin with antiviral, interferonogenic, immunomodulatory and antioxidant action.

Materials and Methods. The study included a group of 64 patients with chronic VHD divided into 2 groups: the first group was treated experimentally with tablets of Pacovirin 50 mg a day, 30 min. before the meals for 6 months with a monthly interval and the second group (the witness) with placebo according to the same scheme. Both groups were randomly selected by a double blind method. The diagnosis was confirmed based on clinical, biochemical (bilirubin, ALAT, thymol testing), serological (anti-VHD sum) data and the immune status.

Results. The administering of Pacovirin led to a more rapid normalization of biochemical indices. so that, in both groups the ALAT level analyzed before the beginning of treatment did not differ much from one. another. then at the end of the treatment in the first group the average level was $0,98 \pm 0,2$ mmol/h/l, compared with $1,8 \pm 0,2$ mmol/h/l the 2nd group ($p < 0,01$). A more rapid decrease in the dynamics with thymol was noted in the first group- $5,2 \pm 1,2$ U compared with the 2nd lot - $6,0 \pm 1,3$ U ($p < 0,05$), respectively and normalization of the immune status indices.

Conclusion. The treatment with Pacovirin led to clinical, biochemical improvement of the immune status.

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Pacovirine Usage in Acute Viral C Hepatitis

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Objectives. Assessment of treatment efficiency with Pacovirine in acute viral C hepatitis (VHC). Pacovirine has a vegetable origin, with antiviral, interferonogene, immunomodulatory and antioxidant action. It is registered by the Health and Social Protection Ministry from Moldova, produced by “Farmaco” A.S.

Materials and Methods. The study includes 64 patients with acute VCH divided into two groups: 1st group (experimental) treated by 50 mg Pacovirine 3 times/day during 10 days and the second (control) - treated with placebo. Both groups were randomized, selected by double-blind method. Diagnosis was confirmed according to clinical, biochemical (bilirubin, ALAT, thymol), serologic (anti-CVH sum, anti-CVH IgM data and exclusion of A, B, D viral hepatitis) and virusologic (ARN-CVH) hepatitis and immune status.

Results. Pacovirine administration leads to rapid normalization of biochemical indexes. Thus, in both analyzed

groups, before the treatment, ALAT level was not significant, but after finishing the treatment in the 1st group the average level was $2,51 \pm 0,82$ mmol/h/l, comparing to $5,8 \pm 0,7$ mmol/h/l in the 2nd group ($p < 0,01$). In the bilirubin dynamics, a rapid decrease in the 1st group ($23,4 \pm 8,6$ mkmol/l), comparing with the 2nd group ($56,4 \pm 10,8$ mkmol/l) ($p < 0,05$) respectively, and immune status indexes normalization also have been determined. Hospitalization period in the 1st group was $16,08 \pm 1,32$ days, but in the 2nd group - $22,12 \pm 2,25$ days. In patients from the 1st group, ARN-CVH became negative in 85%, but in the 2nd one – 15%, in 6 months.

Conclusions. Treatment using Pacovirine led to the improvement of biochemical indexes (ALAT, bilirubin) and ARN-CVH disappearance in 85% cases after 6 month from the disease onset.

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Peculiarities of Cardiovascular Affection in Patients with Liver Cirrhosis

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Background. Patients with liver cirrhosis often have hyperdynamic circulatory alterations with increased cardiac output, decreased systemic vascular resistance and arterial pressure. This cardiac dysfunction has been termed "cirrhotic cardiomyopathy", which is different from the alcoholic heart muscle disease. Cirrhotic cardiomyopathy may contribute to the pathogenesis of hepatorenal syndrome and circulatory failure in liver cirrhosis. We carry out a retrospective analysis of 78 case histories patients suffering from the liver cirrhosis.

Objectives. To reveal frequency of cardio-vascular pathology in patients with liver cirrhosis and to find out peculiarities of officinal treatment of such patients.

Results: Average age of patients was $53,7 \pm 8,7$ years. Correlation between male and female persons was 3:1. Majority of patients were of sub- and decompensate disease status. In 37 (48%) patients liver cirrhosis was complicated with esophagus varicose veins, in 43 (55%) – with ascites, in 34 (44%) – with hepato-cellular insufficiency of different stage, in 12 (15%) – with toxic encephalopathy. Cardio-vascular pathology was detected in 53 (68%) patients. The

most frequently we recorded ischemic heart disease – 45 (57%) patients; essential hypertension – 21 (27%) patients; morbus hypertonicus – 9 (12%) patients; metabolic cardiomyopathy – 4 (5%) patients; atrial fibrillation – 4 (5%), one patient had neuro-circulatory disease of hypertonic type. Predominant etiological factors of hepatic injury were toxic affections, in two patients – professional adverse health effects. Cardiovascular pathology in patients with liver cirrhosis deteriorates their status. Such persons needed longer period of stationary treatment, additional prescription of cardiologic drugs. Among them, the most frequent were metabolic drugs: preduktal, ryboxin, tiotriazolin, aktovegin; inhibitors of Angiotensin-Converting Enzyme; beta-blockers.

Conclusions. In patients with liver cirrhosis often appears cardio-vascular pathology. Such patients need additional prescription of cardiologic drugs, intensification of diuretic therapy which produces an additional medicinal assignment on a diseased liver.

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Diffuse Liver Infiltration by Melanoma. Case Report

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Background. Melanoma refers to the extraordinarily malignant tumors and makes about 13% in the structure of oncologic diseases of skin. Diagnostics and treatment of melanoma was and remains an acute problem of oncology.

Objectives and Methods. We reported a clinical case of a patient who was hospitalized for the investigation of the severe ascites syndrome.

Results. A 37 years old patient was admitted in our clinic with the diagnosis – cirrhosis of the liver of VHB and toxic etiology. At a clinical inspection the common state of health was acknowledged as extremely heavy. Before admission the patient complained: common indisposition, headache, stomachaches, epistaxis, skin itch, absence of appetite and loss in weight (8 kg for 2 months). Laboratory research showed: Hb-94 g/l, Er- $3,1 \times 10^{12}/l$, L- $18 \times 10^9/l$, ESR -52mm/h, ALAT 0,24mmol/l (N=0,2-0,68), GGTP 73,3 U/l (N=5-32), bilirubin sum 249,6 mcmol/l (N=9,2-19,2), HBsAg negative, Anti-

HBcor sum positive, Anti-HVC sum negative, α -FP 2,8UI/ml (N=0-10); CA-199 18,5UI/ml (N=0-37). The common state during treatment has gradually worsened: on the sixth day cardiovascular and respiratory insufficiency appeared, and the patient deceased. The definitive clinical diagnosis was cirrhosis – cancer of the liver of VHB and toxic etiology, active stage, rapid progressive evolution. The morphopathological diagnosis was primary malignant diffuse melanoma of the liver. Morphopathological research showed following size of the liver- 40 x 28 x 26 x 16 cm- black color.

Conclusions and Discussions. Hepatic failure secondary to diffuse liver infiltration by melanoma is a very rare disease. The patient reported here is clearly unusual. The mechanism of liver failure here seemed more related to extensive infiltration and replacement of liver by tumor and widespread necrosis of the remaining parenchyma.

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Diabetes Secondary to Hypertriglyceridemia Induced by Chronic Pancreatitis. Case Report

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The paper presents a case of diabetes mellitus secondary to chronic pancreatitis, which developed as a complication of the patient's long-lasting hypertriglyceridemia. Patient N.G. aged 56 years, male, was admitted in the intensive care unit of the clinic for Diabetes, Nutrition and Metabolic Disease of “Sf. Spiridon” university hospital, on the 26th of February 2008 in severe ketoacidosis. He has a medical history of 11 episodes of acute pancreatitis (6 of them required surgical treatment) and severe hypertriglyceridemia. He developed secondary diabetes since 1994, treated with an intensified regimen of insulin and fibrates. He also had an acute myocardial infarction in 2002, a transient cerebral stroke in 2005, and he developed chronic hepatitis with both B and C viruses probably due to repeated blood transfusions following the surgical treatment of the acute pancreatitis episodes. The patient has no hereditary medical history of either diabetes or cardiovascular disease.

The main reason for his admittance was a new episode of

acute pancreatitis – documented clinically, biologically and by ultrasound imaging. He received specific treatment for the diabetic ketoacidosis and the acute pancreatitis episode was only treated in a conservative manner, without requiring surgery.

Conclusions. Due to persistent hypertriglyceridemia and low secretion of insulin due to the chronic pancreatitis, the patient has a bad metabolic control (his HbA1C level is of 12%) despite being treated with high doses of insulin (42 units of short-acting and 56 units of long-acting insulin). His bad metabolic control is the main substrate for chronic complications that are specific to diabetes (especially macrovascular disease). At the same time, due to chronic hepatitis, the patient cannot receive associated treatment with thiazolidindiones and biguanides. The long-term prognosis is bad due to the lack of metabolic control and associated chronic complications.

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Evaluation of Atrioventricular Node Physiology in Patients Undergoing Catheter Ablation for Atrioventricular Node Reentrant Tachycardia

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Background. Atrioventricular node reentrant tachycardia (AVNRT) is the most frequently encountered form of paroxysmal supraventricular tachycardia. In the past, pharmacologic therapy was the only option to treat patients (pts) with this type of arrhythmia. Nowadays, the diagnosis is established by electrophysiology study (EPS) and the treatment of AVNRT consists in selective radiofrequency (RF) catheter ablation.

Materials and Methods. The study included 60 pts with AVNRT and it is based on the results obtained during EPSs, taking place to the electrophysiology laboratory of the Targu Mures Institute for Cardiovascular Diseases and Transplant (IBCvT). The pts underwent RF catheter ablation for the cure of AVNRT. The electrophysiology evaluation included the use of three catheters: the first was placed near AV node, second in the coronary sinus and the third was used for mapping and afterwards for the ablation of slow pathway. The study protocol included the evaluation of both antegrade and retrograde AV conduction, using decremental atrial and ventricular pacing.

Results. We found different types of conduction patterns during the study protocols, synthesized into two categories:

A. Discontinuous atrioventricular node conduction was typically found in pts with AVNRT. This group has more varieties of AV node conduction: (1) dual pathway physiology with atrial “echo” beat and tachycardia induction; (2) multiple conduction

jumps; (3) dual pathway conduction with atrial “echo” beat but without induction of nodal reentry and (4) dual pathway conduction without atrial “echo” beat.

B. Continuous atrioventricular node conduction is atypical for most of the pts with AVNRT and has the following physiological explications: (1) the fast pathway effective refractory period is prolonged so the slow pathway is involved in antegrade conduction of the impulse; (2) the fast pathway and the atrial myocardium have almost the same refractory periods; (3) the slow pathway effective refractory is approximate to the fast pathway refractory period. Most of the pts had a discontinuous pattern of AV nodal conduction during programmed stimulation. This type of conduction included atrial “echo” beats and induction of the tachycardia. We found atypical patterns of conduction involving problems of differential diagnosis. It was difficult to evaluate the efficiency of catheter ablation in pts with continuous conduction pattern. The older pts had a delayed AV nodal conduction and associated a greater risk in developing AVNRT.

Conclusions. The evaluation of the electrophysiological spectrum of AV nodal behavior in pts with AVNRT is important for the diagnosis and for the evaluation of success after undergoing RF ablation.

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Spectrum of Idiopathic Inflammatory Myopathies

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Background. Idiopathic Inflammatory Myopathies (IIM) are rarely pathologies, constituting a heterogenic group of syndromes that share the characteristic of weakness due to chronic inflammation of the muscle as their common feature, the most frequent forms of IIM are Polymyositis (PM) and Dermatomyositis (DM), Miller F., 2005. The diagnosis of IIM is based on Bohan A. & Peter J. criteria (1975): the proximal muscle weakness, elevated serum levels of muscle associated enzymes, typical myopathic changes in electromyography (EMG), chronic muscle cell inflammation with evidence of myofibril degeneration/ regeneration. mononuclear cells infiltrates, perifascicular atrophy on muscle biopsy and characteristic rash in case of DM. The incidence of IIM is 5.5 cases /year per million people and it is apparently increasing (Jeffrey, P. 2005). Prevalence in the world is estimated as 60 million patients (Kutzbach G. 2007).

Objectives. To assess the spectrum of patients with IIM in the Rheumatologic Department of the Institute of Cardiology.

Materials and Methods. We analyzed the clinical records of patients (pts) who have been diagnosed as idiopathic inflammatory myopathy by the criteria.

Results. There was a cohort of 57 patients with IIM included in our study. The ratio of female to male was 2:1, mean age was 48,6 yr old and it was ranging from 17 to 67 years. All the patients complained muscle weakness and 24 pts (42.1%) of them presented the muscle pain, heliotrope

rash were found only in 11 pts (19.3%), and cutaneous erythema and Gottron papules was in 29 pts (50.8%). The patients of the studied group were investigated through special methods: paraclinical examination by the criteria of diagnosis and recent tools of assessment of IIM, which include: Visual Analogical Scale (VAS) and Manual Muscle Test (MMT). Creatinephosphokinase (CPK) values ranged from 244 to 10315 U/L, 4 patients had normal CPK; electromyography showed disturbance in the electrical activities of the muscle in 42 from 45 cases and muscle biopsy demonstrated inflammatory modifications in 9 from 10 evaluated patients. According to the clinical classification we obtained the followings: Dermatomyositis in 29 cases, Polymyositis-18, Myositis associated with other connective tissue diseases-7, Myositis cancer associated -2, and Juvenile Dermatomyositis -1 patient.

Conclusions. From our survey we noted the followings criteria: muscle weakness was present in 100% patients, elevated muscle enzymes-92.9%, electromyography disturbance-93.3%, positive histological findings-90%, cutaneous features in 50.8% cases in our group. The DM and PM (47/57) predominated in patients of studied group, whereas Juvenile Dermatomyositis and cancer associated myositis were in 3 cases, other 7 patients had Myositis associated with Systemic Lupus Erythematosus.

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Treatment of Obstructive Sleep Apnea Syndrome with Continuous Positive Airway Pressure

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Objectives. This study presents the analysis of the treatment of 60 patients diagnosed with obstructive sleep apnea syndrome in the Clinic of Pulmonary Diseases Iasi and treated with continuous positive airway pressure (CPAP).

Materials and Methods. The treatment monitoring has been periodically made, initially monthly and later once every 3 months. The monitoring consisted of a brief anamnesis regarding the symptoms, side effects, number of hours per night during which the CPAP had been used and a polysomnographic recording.

Results. We noticed a strong correlation between the efficient pressure used for the treatment and the body mass index (BMI), which confirms the studies that mention obesity as the main risk factor in the sleep apnea syndrome. In addition, we noticed that the number of hours during which CPAP had been used was proportional with a decrease in the apnea and hipoapnea index. Apart from this, the results have shown that, in the case of 38 patients, the systolic arterial tension has fallen with more than 10mmHg. We have also noticed that after the treatment with CPAP, the symptoms of the patients were

strongly diminished (remission of snoring, daily drowsiness, morning tiredness, nictury, memory disorders, and headache). In several cases, the masque of the CPAP device has caused the irritation of the nasal pyramid and vasomotor rhinitis. From the 60 patients, 8 have abandoned the treatment with CPAP because of some minor side effects.

Discussions. The symptom improvement of the patients who have permanently and correctly used the CPAP device has occurred from the first days of treatment. Consequently, this aspect has represented a motivation for them to continue the use of the CPAP device, as they have also described an improvement of their professional and personal life.

Conclusions. CPAP is efficient in treating the obstructive sleep apnea syndrome, but we still need larger prospective studies for establishing the optimal duration of the treatment and the long term side effects. Apart from this, in the group we studied, there has not been noticed any major complication and in case they appear, the treatment is stopped.

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Antiresorbative Treatment of Osteoporosis in Psoriatic Arthritis

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Background. Psoriatic Arthritis is one of the seronegative spondyloarthropathies, a form of inflammatory arthritis associated with psoriasis. Psoriatic arthritis is an asymmetric process primarily with distal involvement of the hands. Salmon calcitonin has been available as a therapeutic agent for metabolic bone disease for more than 30 years. It is approved for the treatment of postmenopausal osteoporosis in more than 90 countries. Other approved indications include Paget's disease, bone associated pain conditions, and hypercalcemia (emergency, for injectable salmon calcitonin). Nevertheless, approved indications vary from country to country.

Objectives. To investigate the effects of calcitonin salmon (Miacalcic) therapy on bone mineral density (BMD) in men with psoriatic arthritis (PsA) and secondary osteoporosis. Design: consecutive case series. Setting: Republican Clinical Hospital, Department of Rheumatology. Subjects: 29 men aged 32-68 (median 48.3) with established vertebral or other bone side crush fractures, back and osteoporotic bone pains caused by PsA and secondary osteoporosis, others secondary causes of osteoporosis had been excluded. Intervention: two cycles of treatment with calcitonin in injection for 200 IU daily for 10 days, after that nasal-spray 200 IU daily for a month, which was repeated after 3 months. Every administration was followed by oral calcium 500 mg as citrate daily for all period of calcitonin administration. Every patient had a DMARD

therapy (Methotrexate, Sulfasalazine). Outcome measures: BMD measurement of the radial, ulnar bone by Quantitative Ultra-Sound method before and at 6- 12-month intervals; bone biochemistry (serum calcium, phosphate, alkaline phosphatase) at 6-month intervals.

Results. All 27 men have been treated for more than 14 months, and 10 of them for more than 12 months. Median follow-up for the group as a whole is 14,5 months. The treatment was well tolerated. BMD at the lumbar spine increased by a mean of 0.187 g/cm² per year of follow-up and this is equivalent to an average rate of change of 25-42% of baseline values. Serum calcium and phosphate were unchanged.

Conclusions. Administrations of calcitonin induced rapid decrease in bone resorption and found a good evidence of antifracture efficacy in men with psoriatic arthritis and secondary vertebral osteoporosis. In the present study, significant reductions in the levels of markers of bone metabolism were observed. However, as the hypocalcemic effect of nasal calcitonin in the usual daily dose is rather small and it is combined with adequate calcium and vitamin D an increase of parathyroid hormone levels is not observed. In the present study, serum Ca levels did not change during the 1 year probably due to the administration of calcium and vitamin D metabolite.

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Infectious Endocarditis. Case Report

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Background. Infective endocarditis (IE) is an infection of the endocardial surface of the heart. The intracardiac effects include severe valvular insufficiency, which may lead to congestive heart failure and myocardial abscesses. IE also produces a wide variety of systemic signs and symptoms through several mechanisms, including both sterile and infected emboli and various immunological phenomena. Among the extracardiac complications, involvement of the central nervous system (CNS) is possibly the most serious.

Case Report: A 75 years old caucasian woman with a long medical history of diabetes mellitus – insulin dependent, arterial hypertension, chronic renal failure – haemodialysis (HD) for 6 years and bilateral glaucoma is admitted to the neurological department because of headaches and vomissements. The temperature was 37 °C, the pulse was 130, and the blood pressure was 130/80 mm Hg. Computer tomography scan (CT) showed no recent lesions and lumbar puncture (LP) was in normal limits. Because of the lack of neurological signs and high leukocytosis the patient is referred to a department

of infectious diseases. The next day, the patient returns to the neurological department being referred for: left hemiparesis, nuchal rigidity, intense headache and fever. A second CT and a magnetic resonance imaging (MRI) were performed, showing multiple hemorrhagic lesions or abscesses suggesting cardioembolism. Transthoracic echography (TTE) showed a small tumor attached on the left atrium. The patient received antibiotherapy, diuretics, antiedematous and anti-inflammatory, but the evolution was unfavorable and the patient died five days later. Note that HD was contraindicated because of the hemorrhagic stroke. Examination of the heart at autopsy showed vegetations on its left ventricle, confirming the diagnosis of endocarditis.

Conclusions. The related illnesses of the patient increased the risk of endocarditis. The incidence of IE in HD patients is higher than in the general population. Severe evolution of endocarditis is a major problem and neurological complications are still seen in patients despite a wide range of antibiotics.

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Restless Legs Syndrome in Patients with Various Neurological Disorders

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Objectives. 1. Elaboration and validation of a questionnaire based on essential Restless Legs Syndrome (RLS) diagnostic criteria, suggested by the International Restless Legs Syndrome Study Group in 2003; 2. Determination and analysis of RLS clinical particularities in patients with headache of various etiologies; 3. Study of RLS clinical particularities in patients with Parkinson disease; 4. Determination of RLS clinical particularities in patients with radiculopathy/peripheral neuropathy.

Materials and Methods. Our study included a set of 92 patients with various neurological disorders, hospitalized at the Institute of Neurology and Neurosurgery during 2007-2008. The set of patients has the following structure: 39 patients with headache of various etiologies (male: female of 2:37) with an average age of 50; 12 patients with Parkinson disease (male : female of 8 : 4) with an average age of 64; 17 patients with radiculopathy and neuropathy (male : female of 2 : 15) with an average age of 49,5; 8 patients with post-traumatic sequels (male : female of 3:5) with an average age of 44; 5 patients with cerebrovascular disorders (male: female of 2:3) with an average age of 57,4; 4 female patients with vegetative dystonia with an average age of 55,6; 2 female patients with myasthenia with an average age of 48; 2 female patients with multiple sclerosis with an average age of 46 and a subset of three patients with cerebellar degeneration, cerebral echinococcosis and conversion disorder. In our study we applied an original

questionnaire based on the essential RLS diagnostic criteria, suggested by the International Restless Legs Syndrome Study Group in 2003. Results RLS diagnosis has been established in 21 patients, which shows a quite high prevalence (22,8%) of RLS in patients with various neurological disorders. Also, a number of RLS clinical particularities have been noticed in patients with Parkinson disease and in patients with various pain syndromes (migraine, radiculopathy).

Conclusions. 1. The questionnaire applied and validated in our study is a sensitive and useful tool for RLS clinical diagnostic. 2. RLS symptoms are slightly predominant in the limb or in the half of the body affected by the Parkinson disease; there has been noticed a time correlation between the onset of Parkinson disease symptoms and RLS symptoms; treatment with dopaminergic medication can mask RLS symptoms. 3. There is a time correlation between the onset of migraine and RLS, as well as between the onset of radiculopathy and RLS; onset of RLS symptoms is earlier in patients with migraine, comparing to general population; there has been noticed an aggravation of RLS symptoms during headache episodes; pain syndrome in migraine and radiculopathy can be an aggravating factor for RLS onset. In some cases RLS symptoms can be a part of migraine aura, presaging a migraine attack.

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Alodinie et Autres Troubles de la Sensibilité au Patients avec la Migraine Chronique

Concescu Diana

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L'alodinie cutanée c'est une douleur neuropathique, qui apparaît après l'application sur la peau des stimuli non-dououreux. Les patients avec alodinie cutanée peuvent sentir cet potentiel diminue comme une douleur brûlante, ou comme une douleur déterminée par des contacts ou des compressions habituelles, de la température (froid, chaud), et au contact avec l'eau. Les patients ne supportent pas charrie des lunettes, de bonnet de fourrure, des accessoires dans les cheveux, de se coiffer, le brossage des dents, prendre la douche et faire des promenades (froid, chaud). Mon étude a le but d'expliquer l'association de l'alodinie cutanée chez les patients avec migraine chronique.

Les méthodes. L'étude a compris l'examinations de 50 personnes qui représente : les patients avec migraine chronique et alodinie céphalique (MC+AC), (I groupe), les patients avec migraine chronique et alodinie générale (MC+AG), (II groupe), les patients avec migraine chronique sans alodinie cutanée (MC sans A), (III groupe), et la groupe de contrôle (GC), (IV groupe). Pour l'examen complète de la sensibilité et le dépistage de l'alodinie cutanée ont été utilisés les techniques suivantes :

1. L'examination des points émergents par la digitopression avec une force de 4 kg.
2. L'examination de la sensibilité tactile et a la pression avec monofilamente Semmes Weinstein.
3. L'évaluation de la sensibilité doloire avec le neurotips (le test pin-prick).
4. L'examination de la sensibilité thermique avec Tip-Thermal.
5. L'examination de la sensibilité vibratoire avec diapason neurologique calibre C128.

Résultats. Si on fait une répartition en différents groupes de patients selon age, on observe le développe de MC+AC chez les sujets plus jeunes, tandis que l'association MC+AG est rencontrée surtout chez les personnes âgées. Aussi, la structure de groupes de patients divisés selon age du début de la maladie démontre les choses suivantes: pour le groupe des malades avec MC+AG, le début de la maladie est enregistré plus tôt et contrairement chez les sujets des groupes MC+AC et MC sans A, qui ont débute plus tard. La durée de la maladie a été plus grande dans la groupe MC+AG, (presque 29,14 1,89 ans), en comparaison avec 23,00 1,67 ans dans la groupe MC+AC et 12,9 1,05 ans chez les sujets présentant MC sans A, ce qui constitue une différence statistique majeure en étudiant ce critère.

Conclusions. L'étude a confirme la validité des questionnaires concernant l'alodinie par le fait de la coïncidence entre les plaintes subjectives des patients et le degré élevé de la sensibilité au moment de l'examen des zones tactiles. AG est caractéristique pour les personnes plus âgées avec une durée prolongée de la maladie, et peut-être a notre avis, le facteur déterminant dans ce cas est représenté par la durée de la maladie et pas par l'âge des sujets.

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Severe Coronarian Lesions in Patients with New-Onset Angina Pectoris

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The new-onset angina pectoris is part of the unstable angina pectoris group, which reunites several clinic forms of angina, which have in common a severe myocardial ischemia.

Objectives. To evaluate the coronary injuries in patients diagnosed with new-onset angina pectoris.

Materials and Methods. A group of 165 patients have been part of a study (between January 1st and December 31st of 2007). The patients belonged to all the groups of age and they were all diagnosed with new-onset angina pectoris, with coronarography. The patients with valvular injuries, myocardial injuries, and cardiac failure were excluded. The evolution of the electrocardiogram was pursued and the location and seriousness of coronary injuries were followed.

Results. The most frequent modification encountered is the negative T wave (39 percent of the patients). The electrocardiographical modifications weren't considerably statistically correlated with the gravity of the coronarian injuries. A significant percentage (46,67 %) of patients presented coronarian stenosis, 17 percent of them being multivascular affected.

Conclusions and Discussions. Clinical symptoms are the key factor in the diagnosis of the new-onset angina pectoris. The modifications within the electrocardiogram do not correlate with the severity of the coronarian injury. The severe coronarian stenosis and multivascular affection show up in a significant percentage at the patients with new-onset angina pectoris.

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Chronic Kidney Disease (CKD) and the Risk of Cardiovascular (CV) Events

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It has long been known that the risk of CV events such as myocardial infarction or stroke is markedly increased in patients with CKD. This increased risk has usually been ascribed to the coexistence in patients with CKD of many classical CV risk factors such as hypertension, hypercholesterolemia, diabetes, etc. Interestingly, recent evidence points to the fact that CKD, especially the severity of the reduction of glomerular filtration rate (GFR), is an independent risk factor for CV, even after adjustment for the many potential confounders. Why a reduced GFR is independently associated with a marked increase of the CV risk is at present not fully elucidated. As this phenomenon is not explained by the classical CV risk factors, non classical CV risk factors have been incriminated. These include among others, anemia, vascular calcifications, (micro) inflammation, homocystein, other uremic toxins, etc. Unfortunately,

intervention studies designed to elucidate the potential therapeutic benefit of improving such non-classical CV risk factors have been associated with many failures. This will be illustrated by several examples including the use of newer non calcium based phosphate binders, the use of folic acid to reduce hyperhomocysteinemia, the use of statins as a way to reduce microinflammation, etc. In the last part of my presentation, I will stress the need for an optimal control, i.e. an improvement from the current status, of classical CV risk factors as the best way to both delay CKD progression and reduce the risk of CV events. This will in many cases imply the use of multiple drug therapy for hypertension and proteinuria, as well as multidisciplinary management of associated CV risk factors.

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Enthesal Pain in Patients with Psoriasis

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Objectives. To assess the degree of enthesitis pain in patients with psoriatic arthropathies (PsA).

Materials and Methods. There were examined a cohort of 53 patients with different types of psoriasis: the gender ratio was 28 - male, 25 - female, the mean age 32 ± 6.4 (range 18 - 78) years. Patients were divided in 2 groups: 1st group - 31 pts with PsA and 2nd - 22 pts with varied forms of psoriasis alone. Median disease duration in 1st group was 9.1 ± 1.8 yrs (range 1 to 208 months), in 2nd - 3.6 ± 1.1 yrs (range 0 - 91 month) ($p > 0.05$). In I group were used PASI, DAS28 - for peripheral involvement and BASFI, BASDAI - for axial involvement. DAS28 and BASDAI were included yet VAS - for assessment of pain. Enthesitis were evaluated by MASES score and tenderness on pressure at sites of entheses insertion into bone by VAS in both groups.

Results. At presentation assessed patients by tools were following with: in 1st group PASI was 12.8 ± 1.6 (range 11-61); DAS28 3.9 ± 0.8 (range 3.2-7.5), BASDAI 5.2 ± 0.4 (range 4.3-6.1); BASFI 3.8 ± 1.4 (2.2-6.3); MASES 9.2 ± 0.6 (range

8-13) scoring methods of enthesitis. The VAS was in 1st group 7.2 ± 0.3 (range 6-8) vs in 2nd group $-1.9 \pm$ (range 0-4), PASI 13.14 ± 2.1 (range 11-52) and MASES 2.3 ± 0.9 (range 0-5), for a too many to feasibly and reliable assess in patients without evident articular syndrome. In 1st group we discovered the following manifestations: peripheral arthritis involvement in 5 (16.1%) patients, axial - 2 (6.4%), both 15 (48.3%) patients and enthesal involvement was in 23 (74.2%) patients. In 2nd group we appreciated pain on pressure at sites of entheses insertion by VAS and MASES in 12 (38.7%) patients. In fact VAS and MASES were higher in first vs second group.

Conclusions. Enthesitis are the most frequently rheumatic features in patients with psoriasis, more common in psoriatic arthropathies. It is important to identify enthesitis using MASES score. For patient, with an evident or not so clear articular syndrome is objectively using VAS, such as in others rheumatic manifestation.

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Comparison of Clinical Features and Onset of Anorexia Nervosa in 10 Years Period

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The large majority of patients diagnosed as having anorexia nervosa (AN) are adolescents. The onset of AN is characterized by bimodal distribution with two peaks (at 14,5, resp. 18 years). The early onset (before 14 years of age) appears to be associated with better prognosis, but very early onset before puberty has controversially very poor outcome. In our retrospective study we compared two groups of patients with AN hospitalized on our department between years 1994-1997 (n=28; 27 girls + 1 boy, age $15,46 \pm 1,90$ years) and 2004-2006 (n=21; 20 girls + 1 boy, age $14,33 \pm 2,44$ years). Late onset of AN occurred significantly more frequent in patients hospitalized between the years 1994-1997 ($p=0,012$, Kolmogorov-Smirnov test) and the trend appeared to be towards a younger age group in the patients hospitalized in 2004-2006 ($p=0,061$, Kolmogorov-Smirnov test). It correlates with the higher incidence of primary amenorrhea in girls

hospitalized in 2004-2006 (25% vs. 7,4%, $p=0,09$). Summary weight loss (in both groups) before the hospitalization was $11,04 \pm 6,07$ kg, with beginning of signs in average period $11,04 \pm 7,99$ months, duration of secondary amenorrhea was $5,85 \pm 3,85$ months. Stay on the in patient unit was $24,22 \pm 14,48$ days with exclusion of patients transferred to other departments (n=8). Precipitating trigger factors of AN were similar in both groups - peer pressure, desire to be professional dancers, unsuccessful casting for a prospective modeling career, negative influence from magazines for teenage girls, faith thirst for healthy eating, parents divorce or other family conflict, and migration. In ten years period we observed a trend which tends to earlier onset in our AN patients with its negative consequences.

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Clinical-Hematological Features in Evolution of Malignant Tumors

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Objectives. To elucidate a case report of a fast evolution malignant tumour, masked by the severe haematological complications.

Materials and Methods. Patient G.O, 47 years old, female, who was monitored during a period of 2 months. The evolution of the disease has resulted in exitus letalis. At the moment of hospitalization, the patient presented the following complaints: pain, paresthesia in the occipital region, asthenia, fatigability, subfebrility, and some ecchymoses appeared on the skin. After a month period paresthesia, loss of sensibility of the lower lip, jaw, lumbosacral pain and weakness in the legs were recorded. Subsequently, the patient lost the appetite, the newly epigastric pain was noticed, having no correlation with the meals, there was a remarkable 4 kilograms- weight loss, several episodes of orthostatic collapse were noted and in the lumbosacral region of spinal column reappeared the pain. The haemorrhages became more expressive, the epistaxis taking more than 30 minutes, the persistent gingival haemorrhage, subconjunctival haemorrhage, metrorrhagia appeared, the subfebrility condition continued to be present. At an end, in poliorganic insufficiency condition she was consulted at the Oncological Institute in order to take a chemotherapy treatment. According to the situation of the patient - the severe evolution of the anaemic and hemorrhagic syndromes,

derived from the followed treatment, the decision to refuse the specific chemotherapeutical treatment was taken. Only a detoxication, antimicrobial and blood component therapy was made. The death cause was the cerebral oedema, or cerebral haemorrhage. Because of the religious reasons, the autopsy was not performed.

Results. In order to make a proper diagnosis, the patient underwent the following laboratory and instrumental investigations: haemoleucogram: biochemical parameters of the blood; thyroid tests; upper digestive endoscopy; abdominal echography; gynecologic ultrasonography; X-ray of thorax; X-ray of cervical and lumbosacral regions; lumbo-sacral MRI scan examination, which shows secondary metastases in lumbo-sacral region, lumbo-sacral discopathy (L5-S1), sternal puncture. The crucial role for evaluating the diagnosis had trepanobiopsy, which revealed the presence of malignant cells, adenocarcinoma type of cancer.

Conclusions. The advanced cancer may cause severe haematological complications: pancytopenia, DIC (Disseminated intravascular coagulation), thrombosis. For the establishment of the suspected diagnosis the leading option was bone marrow examination- trepanobiopsy.

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Epidemiological and Clinical Peculiarities of Mumps in Adolescents and Adults during the Outbreak of 2007-2008 in Republic of Moldova

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Objectives. To investigate the clinical-epidemiological particularity of mumps in adolescence and adults.

Materials and Methods. Epidemiological, clinical and laboratory investigation of 247 patients hospitalized with the diagnosis of mumps in the Infectious Disease Clinical Hospital “T.Ciorba”, Chisinau, R.Moldova, during the period of 01.12.2007- 01.02.2008.

We investigated a total of 247 patients. The mean patient's age was 18.5 years (range 11-40 years). The ratio of male/female was 240/7. In 97% of cases the patients noted an epidemiological link of their disease. The patients were hospitalized on the 4th day (range 1-12) after the onset of the disease; the length of hospitalization was 10 days (range 4-22 days). None of the patients have the card of vaccination, and no one knew whether they were vaccinated for mumps. In all cases the first clinical manifestation was parotiditis, in 65 (26%) - unilateral, in 184 (75%) - bilateral. The patients complains of fever 38,5°C (range 37.5-40.0), pain when eating or drinking acidic and sweet foods, tenderness over the angle of the mandible, headache, loss of appetite, tiredness. Orchitis developed in 90 (36%) patients, in 81 (90%) unilateral, in 9 (10%) - bilateral. The testicles were swollen on the 7-10 day of the disease and were accompanied by a second wave of fever 38,5°C (range 38°C-40°C). In 50 (56%) of patients with orchitis there was also a mild leucocyturia. Pancreatitis occurred in 101

cases (41%). The average amount of serum amylase was 469 IU (range 101-1189). In patients with mumps, pancreatitis manifests with only mild or even slight abdominal pain, the severity of pain don't correlate with the grade of amylasemia. Mumps with CNS involvement occurs in 18 (7%) patients. CSF exhibits a lymphocytic pleocytosis of 430 cells/ml (range 16-530). The Brudzinski or Kernig symptoms were present in 7 (39%) cases, in others 11 (61%) patients there was only slight stiffness of the cerebrospinal muscles. The main complaint of all the patients was persisting headache and fever of 39°C, vomiting 3 (17%) patients. There was only one case of unilateral hearing loss, and one case of oophoritis. Leucocytosis of 14.14×10^9 (range 9.6×10^9 - 30.0×10^9) was present in 76 (31%) patients, among those 63% had only parotiditis, 36% with parotiditis and orchitis, 7% with parotiditis and meningitis and 3% with parotiditis, orchitis and pancreatitis and meningitis.

Conclusions. 1. In adolescents and adults mumps is a severe disease with high percent of pancreatitis, orchitis, and CNS involvement. 2. All the patients must be investigated thoroughly because there may be not the classic clinical signs of organ involvement. 3. It is necessary that every patient should have an individual card with all information of vaccination history and suffering of chronic disease.

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Sexual Behaviour Changes in Persons Suffering from Migraine

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Background. Sexuality is one of the most pleasing domains of life, and indeed is the principal instinct which maintains life on earth. The problems connected with sexuality are always an actuality and always presents interest both for people and scientist and each man in part. Sexuality, for humans doesn't summarize only at its reproductive role, but it also has a major influence above the personality on social, familial and psychological level. Migraine has a direct attack above sexuality, through the functional and organic changes which are produced by this disease. Between all the sexual disturbances it seems that the diminution of the sexual appetite, both in men and in women has a straight link with migraine.

Objectives. To determine how and in what measure the migraine actuates above the sexual behaviour.

Materials and Methods. In this study have participated 20 patients with migraine, and 20 patients with headache of tensional type. The main method was the use of the questionnaire with the evidence of the most relevant moments, and the directly interrogation of the patients. Serotonin is a neuromoderator synthesized in the small intestine from triptofane which is an essential aminoacid, with a major role in the

migraine pathogenesis. Serotonin is eliminated in a big quantity during the migrenous attack through the degranulation of the mastocytes and trombocytes, a confirmed fact by the increasing of the serotonin amount in the blood and urine concentration of the acid 5-hydroxy-indol-acetic. Due to the frequent migraine attacks, all the serotonin supplies are eliminated. In the same time, migraines are also always accompanied by an increasing sexual appetite, which seems incredible. Near this, the subsided level of the serotonin has and other effects: depression, neurovegetative imbalance, sleeplessness and many others.

The results were different, but the majority of patients affirmed that migraine doesn't reduce their sexual desire. The number of those who declared that sexual contact worsens their pains was much smaller than of those who affirmed that sex helped them to get rid of the pains. All these things, I think that present a big interest and deserves to be studied more profoundly, and this study will give us a new vision about this disease and new methods of treatment of migraine.

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Usage of Massage-Therapy in Patients with Hemiparesis in Association with Depressive Disorders

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Background. The post-stroke patients (PSP) frequently experience movement disorders symptoms, such as hemiparesis. The association of depression in these patients causes severe disability.

Objectives. To evaluate the hemiparesis in PSP and its correlation with depression, the efficacy of massage-therapy in depressive patients with hemiparesis.

Materials and Methods. Thirty patients affected by severe hemiparesis were included in the study. A clinical examinations and neuroimaging studies have been performed. All patients underwent a neuropsychological assessment, Barthel Index (BI) and Scandinavian Stroke Scale (SSC) evaluation. The depression syndrome was estimated by Hamilton Depression Rating Scale.

Results. Patients were divided in 2 groups. The first group includes 22 patients with hemiparesis (SSC 20, BI 50) in association with depressive disorders (HAMD 38) (DD). We

observed the insignificant amelioration of motor function and decreasing of depression only after second (SSC 22, BI 55, HAMD 30) or third (SSC 26, BI 60, HAMD 20) course of massage-therapy. In comparison 8 patients from the control group (HAMD 10, SSC 22, BI 60) had an important alleviation of movement already after one 10-days course of massage (HAMD 8, SSC 26, BI 70) and in dynamics it improves more significantly (HAMD 8, SSC 32, BI 75).

Conclusions. The clinical data suggest the complexity of hemiparesis symptoms in post-stroke patients which can be successfully managed using massage-therapy. The depression syndrome worsens the general status of the patients and also requires treatment. In this connection the further studying of possibility of appointment to these patients of antidepressant treatment for complex rehabilitation is expedient.

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Risk Factors in Young Patients with Ischemic Stroke

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Background. Stroke is the third most common cause of death worldwide (after coronary heart disease and all cancers combined) and the major cause of disability. Data from numerous epidemiological studies confirm that the incidence of this pathology between young people varies from 2.5% to 13%. The risk factors for stroke could be divided in 2 groups: modifiable and nonmodifiable. The first group includes: age, race/ethnicity, gender, family history and genetics. The second group includes: arterial hypertension (AHT), lifestyle, cardiac disease, dyslipidemia, atherosclerosis, cigarette smoking, alcohol consumption, obesity.

Objectives. To evaluate the risk factors in young patients with ischemic stroke.

Materials and Methods. We retrospectively reviewed the records of the 217 patients admitted to the Stroke Department of the National Scientific-Practical Center of Medical Emergencies (NSPCME) from Chisinau, Moldova, between 2006 and 2007. All patients were examined by history, neurological status, lab finding with lipid metabolism evaluation, CT imaging, transcranial Doppler for the embolism detection, extracranial duplex sonography.

Results. From the 1152 cases of stroke admitted, our patients formed 18.83 %. From 217 patients, ischemic stroke was identified in 163 patients, which represent 75.12%. We divided this group after in 53.37% male and 46.63% female. The age range was: 18-35 years old vs. 6.75%; 36-45 years vs. 17.18% and the last group 46-55 years vs. 76.07%. AHT was

the most frequent risk factor in our study, represented by 75.79% male and 77.62% female and it was present in all 3 age groups. Diabetes rises rapidly with age and represent 17.85% in the second group and 30.64% in the third group, female being 2 times more affected than males. Atherosclerosis was the cause of stroke in 26 patients from the third group (24.64% male, 16.36% female). The fall of the lipid metabolism was an phenomenon met in all 3 groups, varying from 20.77% in the first one to 27.88% in the third one. Atrial fibrillation (AF) was met in 9% from all the patients. Rheumatism as a risk factor was the same for male and female from the first 2 groups, rising significantly in the third one (29% female and 8.7% male). Other causes, which were less common like smoking were determined in 10.4%, alcohol consumption – 7.25%, obesity in 6.75% and cryoglobulinemia in 0.6%. In 75% cases patients had more than one risk factor, associated like AHT – diabetes and AF, or AHT with AF/rheumatism and the last one, AHT- obesity and alcohol consumption.

Conclusions. 1. The specific of the ischemic stroke in young people is that it is caused by more than one risk factor associated which needs to be diagnosed for establishing the cause of stroke. 2. Data from our study confirm that AHT, diabetes and lipids are among the most important biological risk factors for stroke and our lifestyle factors including smoking and alcohol consumption are significant factors for stroke risk.

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Ferromagnetic Particle Magnetocaloric Effects in Magnetic Fluid Hyperthermia Cancer Therapy

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Background. Magnetic Fluid Hyperthermia (MFH) represents one of the focal points in the biomedical approaches to cancer therapy involving the use of ferromagnetic nanoparticles that are injected into the cancerous tissue and by means of an alternating magnetic field, heat is locally generated. However, choosing the appropriate amount of particles and using biocompatible strengths and frequency values for the alternating magnetic field are vital for successful MFH cancer therapy.

Objectives. To analyze the heat dissipation within the tissue taking into account the interactions between the nanoparticles, the concentration of the nanoparticles within the tumour, the amount of heat generated through Néel relaxations and Brownian rotation and also considering different types of cancerous tissues with their respective physical and physiological properties.

Materials and Methods. A computer-based model was created using COMSOL: Multiphysics in order to simulate the interactions within the tumour in order to obtain results that could be relevant for in vivo conditions. The amount of power

loss was measured for different concentrations of nanoparticles in the magnetic fluid and for different types of tissues (brain, breast, liver, lung, rectum and skin tissues).

Results. The results from our simulations showed that superparamagnetic nanoparticles exhibit a better therapeutic effect both in terms of generated heat as well as in terms of local concentration within the tumour when compared to ferromagnetic particles. Besides, the size of the optimal temperature area (42 – 46°C) increased proportionally with the concentration of the nanoparticles and could be considered therapeutically efficient for tumours with a lower density and lower vascularisation.

Conclusions. Our simulations show that, given the appropriate conditions and description of the tumour, we can evaluate the dose of nanoparticles needed for a successful therapy using MFH and also to predict the type of tissue for which the therapy would be most efficient.

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Psychological Factors in Chronic Low Back Pain

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It is estimated that 60% to 80% of people were affected by some form of low back pain during their lifetimes and 5% to 10% eventually develop chronic low back pain. The impact of psychological and social factors in ethiology of low back pain were a long period underestimated. The current study is a synthesis of other studies and also an analysis of

low back history of some patients from Institute of Neurology and Neurosurgery, Chisinau, Moldova. The obtained statistic demonstrates the importance of implication of human psychology in the chronicization of low back pain.

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Cardiovascular Aspects in Patients with Systemic Lupus Erythematosus (SLE)

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Background. The multisystem nature of systemic lupus erythematosus (SLE) makes the involvement of the cardiovascular system (CVS) worthy of study. This involvement of the CVS is variably seen in patients with SLE, and medical literature indicates that SLE can implicate all parts of the heart.

Objectives. To estimate the percentage of CVS involvement in a group of patients with SLE, and to describe this involvement by means of CVS pathologies.

Material and Methods. A group of 36 patients with SLE were enrolled in our study. For the diagnosis of SLE, as our first step, the criteria of the American College of Rheumatology (ACR) were used. The next step after confirming SLE was the evaluation of the CVS and its involvement. For this purpose the following methods were used: history taking and physical examination, laboratory analysis (for inflammatory reactants, blood lipid levels, and cardiac enzymes), and instrumental investigations

(Chest x-ray, Electrocardiography, Echocardiography, Duplex of carotid arteries).

Results. From the total number of patients enrolled (36); 19 patients (53%) were found with CVS involvement. Taking into consideration that one patient can manifest more than one CVS pathology, the involvement was as follows: pericarditis 6 patients (17%), myocarditis 1 patient (3%), valvulopathy 1 patient (3%), hypertension 12 patients (33%), atherosclerosis 16 patients (44%), angina pectoris 3 patient (9%), myocardial infarction (MI) 1 patient (3%), arrhythmia 9 patients (9%).

Conclusions. CVS involvement is frequently seen in patients with SLE (53%). The activity of SLE does not correspond to CVS involvement. Ischemic heart disease (atherosclerosis, angina, and MI) is the major implication of CVS involvement in SLE constituting 50% of enrolled patients. The involvement of CVS can be manifested as combination CVS pathologies.

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Efficiency of Antiretroviral Treatment (ARVT) in Patients Infected with HIV

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Objectives. To assess the efficiency of the ARV treatment in patients infected with HIV who had the level of CD4 <10 cells/mm³ at the time of the ARVT initiation.

Materials and Methods. The research sample comprised 18 patients with HIV, who had the level of CD4 <10 cells/mm³ at the time of the ARVT initiation. The patients were examined through clinical, immunological (CD4) and virologic (PCR ARN HIV) methods before the treatment initiation and in the course of rendering the therapy.

Results. 18 patients infected with HIV with the level of CD4 <10 cells/mm³ at the time of the ARVT initiation were supervised. Prior the ARV treatment, the average value of CD4 in those patients was 4.5 cells/mm³. All patients had clinical and immunological indications for the ARV therapy initiation, while 56% had virologic indications as well. During the first month of therapy three patients died, while 15 continued the ARV treatment, and average value of CD4 in those patients was 30 cells/mm³. In the course of the next three months, two more patients died, but the other 13 who continued the ARV therapy had the average

value of CD4 equal to 68.3 cells/mm³. Seven months later after the initiation of the ARV treatment, the average value of CD4 was 94.4 cells/mm³, while the plasmatic level of the RNA HIV became undetectable. Ten months later after the initiation of the ARV treatment, the average value of CD4 was 176 cells/mm³, and the plasmatic level of the RNA HIV remained undetectable. Since the patients started the treatment at different periods, only one patient reached three years of treatment at this time; his level CD4, cells was 2 at the beginning of the therapy, while currently this indicator is 316 cells/mm³, and the viral load is undetectable. The other 12 patients continue successfully the ARV treatment on the same pace.

Conclusions. Although it is not advisable and timely, the treatment can be initiated even at very low levels of CD4 cells. There are real chances to rehabilitate the immunity system in extremely poor condition of patients with HIV, and everybody in need must be offered such chances.

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Restless Legs Syndrome in Correlation with Emotional Dysfunction in Medical Students

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Emotional stress is thought to correlate with the symptomatic development of the restless legs syndrome - RLS.

Objectives. To establish the correlation between emotional dysfunction and the RLS and to evaluate the prevalence of RLS in young population.

Materials and Methods. Restless legs syndrome (RLS) is a sensorimotor disorder characterized by a complaint of an almost irresistible urge to move the legs. To determinate the influence of emotional state on the clinical manifestation of RLS was used a questionnaire composed together with Alexandru Casapciuc, student of the VI year, USMF, based on the one, developed by the International Restless Legs Syndrome Study Group (IRLSSG). Therefore 80 young subjects (females and males, age 19-22) were investigated. The symptoms of RLS has been detected at 8 subjects (10%) who have positively answered to all 4 essential criteria of the diagnosis: 1. An urge to move the legs is usually accompanied or caused by uncomfortable and unpleasant sensations in the legs; 2. Begin or worsen during periods of rest or inactivity; 3. Are partially or totally relieved by movement; 4. Are worse in the evening or night than during the day or only occur in the evening or night.

Results. 5 of the 8 detected subjects, amount to 62,5%, suffered from dissatisfaction, insomnia, tiredness, irritation, sadness, anxiety of pain and weakness. After stress they were disturbed by restless legs and even pain in both feet. Time to time they felt an unpleasant sensation in upper limbs. After a brief or continuous movement the pain and urge of movement disappeared partly. In combination with emotional improvement the symptoms disappeared rapider about 71,2% ($P < 0,01$).

Conclusions. The RLS syndrome causes sleep disturbance that provokes depressive mood. On the other hand emotional stress increases the symptoms of RLS by reduction of sensitive threshold. After an emotional correction RLS symptoms occurs about two times rarely. Consequently is observed a possible correlation between emotional dysfunctions and their influence on the symptoms of the Restless legs syndrome. Currently a treatment with dopaminergic drugs resolves RLS.

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Ancient China Meridians and Modern Theory of Fractals

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One of the main elements of Chinas acupuncture – the meridians can be described by the theory of fractals: firstly it divides each object in a number of small elements; some of them will contain a part of the object, others – not. Secondly – the existence of fractals of some higher grades: the whole object as a first order fractal; than, due to the reducing of the size of elements of the analyzing object, the fractals of a higher grade are formed. Back to the acupuncture meridians: when we put on the image of a human body from an acupuncture-point atlas a net of a great variety of small squares, we find that in some squares are parts of meridians together with the properly acupuncture-points, but others are empty. According to the second attitude, the main meridians are divided into meridians of a smaller dimension – net-meridians, muscular meridians and others, that construct a branched out system, up to the small channels of energy-supply of elementary biological cell (that, in general, explains the metabolic regulation by the application of acupuncture). The relations in human body are constructed within structural, temporary

and functional fractals. The structural fractals are shown by topographic images of acupuncture-points and meridians. Temporary fractals – by daily circulation of energy stream through the meridians. The functional fractals are displayed by active feedback in meridians by the influence of acupuncture needle on acupuncture-points, placed in the corresponding meridian. The issue and aim of acupuncture consists in the achieving of the “functional fractals”, that means an active feedback – positive treatment effect. Therefore should be realized the following “fractals”: - structural: exactly localized the position of necessary acupoints on the meridians; - temporary: to know the bio-rhythms of meridians, that means that each organ has 2 hours of the maximal activity and 2 hours with the minimal activity that is reflected on acupoints activity. That’s why the influence on the acupoints has to be used during the maximal activity of “structural fractal”. Only by using all the given factors the maximal effect of treatment could be achieved.

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Ischemic Vascular Disorders of Spinal Medulla in Fibrosing Hypertrophic Pachymeningitis

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Background. Hypertrophic spinal pachymeningitis (HSP) is a rare chronic inflammatory process that causes thickening of the dura leading to compressive myelopathy. HSP has diverse etiologies. However, in most cases the cause of spinal pachymeningitis is vague or idiopathic. In this report, we describe our experience with this entity.

Materials and Methods. 43 patients, 26 women and 19 males, 22-63 years old, participated in this particular study. Clinical examinations, radiographic studies, magnetic resonance imaging (MRI) of spinal cord and histological examinations have been performed.

Results. The HSP developed after a minor trauma of the spinal cord without vertebra damages and was the causative factor of ischemic myelopathy in 16 cases. In 9 cases the HSP was caused by degenerative disorders of the spinal cord (osteocondrosis, osteoporotic spondylopathy). 18 cases had an infectious etiology. Ischemic myelopathy had an acute start

in 15 cases and a slow-progressive beginning in 28 cases. Acute ischemic myelopathy affected primarily the cervical and superior thoracic level. 5 cases were morphologically diagnosed. Patients with acute vascular disorders complained tetraparalysis with sphincter and sensitive disorders. Slow-progressive vascular disorders affected the same spinal levels. 3 neurological syndromes developed according to the location of ischemia: amyotrophic, spastic-amyotrophic and spastic. Patients complained of minor sensitive and sphincter disorders. Morphological reviews were performed in 6 cases.

Conclusions. Compressed arteries of medullar nerve roots play an important role in pathogenesis of ischemic myelopathy. The compression is mainly caused by HSP (sometimes complicated with petrifications) within the meningoradicular sack.

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Vasoactive Therapy in Lesions of the Mitral and Aortic Valves with Chronic Regurgitation

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This review examines the results of vasodilator therapy in patients with chronic regurgitant lesions of the aortic and mitral valves. The analysis includes those studies which provide data on hemodynamic measurements, left ventricular systolic function, ventricular volumes and regurgitant flow. After the literature data in patients with chronic aortic or mitral regurgitation, the short-term administration of nitroprusside, hydralazine, nifedipine or an angiotensin-converting enzyme (ACE) inhibitor produces salutary hemodynamic effects. The major difference in the response to combined preload and afterload reduction (i.e., nitroprusside) in patients with aortic versus mitral regurgitation was that forward stroke volume generally increased and ejection fraction remained unchanged in mitral regurgitation, whereas ejection fraction generally increased and forward stroke volume remained unchanged in aortic regurgitation ($p < 0.001$). These observations suggest that a reciprocal relation between regurgitant and forward flow characterizes the response to preload and afterload reduction in mitral regurgitation (through a preload-dependent dynamic regurgitant orifice), whereas correction of afterload mismatch dominates the response in aortic regurgitation. In studies

of long-term vasodilator therapy in patients with chronic aortic regurgitation, a reduction in left ventricular volumes and regurgitant fraction, with or without an increase in ejection fraction, has been observed during treatment with nifedipine and ACE inhibitors ($p < 0.001$). Patients with the largest, sickest hearts generally benefit the most from treatment with vasoactive drugs. Nonetheless, favorable ventricular remodeling has been reported in asymptomatic patients, and long-term nifedipine use has delayed the need for operation in asymptomatic patients with chronic aortic regurgitation. For patients with chronic mitral regurgitation, definition of the etiology of the lesion is a prerequisite for choosing appropriate therapy. Excluding patients with obstructive hypertrophic cardiomyopathy and mitral valve prolapse, and some with fixed-orifice (i.e., rheumatic) mitral regurgitation, the signal importance of preload reduction suggests that the preferred long-term therapy for symptomatic chronic mitral regurgitation is an ACE inhibitor ($p < 0.05$). At moment there are no long-term studies that support the use of vasodilator therapy in asymptomatic patients with chronic mitral regurgitation.

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Diastolic Abnormalities of the Cardiac Function in Systemic Sclerosis: Evidence for Associated Defective Cardiac Functional Reserve

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Objectives. To investigate the pattern of diastolic abnormalities in patients with systemic sclerosis (SSc) and the relationship between impaired ventricular filling and systolic function.

Materials and Methods. We have examined 75 patients with SSc (67 women and eight men, aged 26 to 73 years) all of whom satisfied the American Rheumatology Association (ARA) preliminary criteria for the classification of SSc. All the patients underwent chest radiography, electrocardiography (ECG) at rest, M-mode echocardiography, and pulmonary function tests including the evaluation of diffusing capacity for carbon monoxide. Among 75 patients, 25 were found to be affected with conditions known to impair ventricular filling: congestive heart failure, pericardial effusions, coronary artery disease, and arterial hypertension with left ventricular hypertrophy. The remaining 50 patients, including four hypertensive patients without increased left ventricular wall thickness (<13 mm) were invited to undergo bicycle exercise and 24 hour Holter ECG, two dimensional echocardiography with Doppler examination. Twenty four of them gave their informed consent to participate: 20 had no overt evidence of heart involvement as detected by basal investigations (ECG at rest and M-mode echocardiography), and four had arterial hypertension without left ventricular hypertrophy. All the

patients had been treated with calcium channel blockers, which were withdrawn seven days before the echo-Doppler studies were performed. Among the 24 patients (22 women and two men, aged 32-73 years), 11 were affected with limited cutaneous SSc, four have had confluent lesions cutaneous SSc, and nine have had diffuse cutaneous SSc. Their disease duration was from two to 39 years. Four patients were affected with arterial hypertension that was controlled by angiotensin converting enzyme inhibitors. In two of them the onset of arterial hypertension had occurred before the first symptom of SSc (debut through Raynaud syndrome); in the third, arterial hypertension had appeared three years after the onset of SSc, but was not associated with any finding of altered renal function. The fourth patient have had survived a scleroderma renal crisis two years before the time of the study. In one of the four, coronary artery disease was also detected by exercise ECG. Impaired relaxation of the left ventricle is a recently described feature of scleroderma heart disease. Diastolic dysfunction in SSc could depend on myocardial fibrosis or myocardial ischemia, or both. It was found to be associated with a defective cardiac functional reserve. However, its prognostic significance remains to be clarified.

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Importance of Body Mass and Waist Circumference in Patients with Arterial Hypertension in Association with Obesity

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Objectives. Evaluation of the metabolic changes (glucose and lipid spectrum) in patients with arterial hypertension and obesity in concordance with obesity particularities established with body mass index (BMI) and waist circumference (WC).

Materials and Methods. In this study were examined 119 patients with arterial hypertension I-II grades in association with obesity. Exclusion criteria were cases with severe arterial hypertension, underweight, normal weight, unstable angina pectoris, acute myocardial infarction, severe chronic heart failure (III-IV NYHA) and severe arrhythmia. Physical examination of the patients was performed and evaluated anthropometric data. The anthropometry was established estimating the body mass index and waist circumference. The persons were considered as obese with a BMI > 30 or WC > 88 cm for women and > 102 for men. The lipid spectrum consists of estimation of total cholesterol, LDL-cholesterol, HDL-cholesterol and triglycerides (TGL). Fasting plasma glucose test (FPGT) is based on estimation of glycemia a jeun and 2 hours after 75 g of glucose intake. In a similar way were appreciated imunoreactive insulin (IRI) and C peptide.

Results. The assessment of anthropometric indexes to the subjects of this study showed that 12 patients were determined with

overweight (10.1%), 43 (36.1%) – obesity I class, 40 (33.6%) – obesity II class and 24 (20.2%) were patients with extreme obesity.

This study reveals that BMI and WC had direct correlations with one of the glucose spectrum indexes: a jeun imunoreactive insulin ($p < 0.01$ and $p < 0.001$), a jeun C peptide ($p < 0.05$ and $p < 0.01$). In addition, BMI had a direct correlation with C peptide level after FPGT ($p < 0.001$), total cholesterol ($p < 0.05$) and LDL cholesterol ($p < 0.05$). WC had a direct correlation with a jeun glicemia ($p < 0.001$), glicemia after FPGT ($p < 0.001$), IRI after FPGT ($p < 0.01$) and TGL ($p < 0.001$). WC seems to have a correlation with glucose metabolism and from lipid spectrum with triglycerides and BMI has correlation significantly with lipid spectrum and from glucose spectrum with insulin and C peptide.

Discussions. In spite of the fact that WC is considered as a cardiovascular risk factor more independent as BMI, our study revealed that the patients with arterial hypertension in association with obesity both WS and BMI had a strong correlation with one of the lipid and glucose metabolism indexes. For identification of cardiovascular diseases it is recommended to take into consideration not only the waist circumference but the body mass index too.

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Les Kinésies Paradoxaes dans la Maladie de Parkinson - Review, Etude Clinique

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La maladie de Parkinson (MP) est une maladie degenerative du cerveau qui se manifeste par des suivantes signes cliniques: bradykinésie, rigidité, tremblement, instabilité posturale.

Les kinésies paradoxales (KP) représentent un phénomène pendant lequel disparaissent ou diminuent les éléments de l'akinésie et de la dystonie observés dans la MP. On a été démontré que les patients qui manifestent rigidité, bradykinésie ou souffrent du tremblement accentué, à l'influence des divers facteurs: son, lumière, le placement des objets dans l'espace, grandes émotions, souvenirs, stress, situations extrêmes de la guerre, tout à coup se débarrassent de ses symptômes, parfois il est impossible de faire la différence entre les malades de la MP et les personnes saines. Le phénomène de KP se consume brusquement aussi comme s'installe.

Les facteurs qui déterminent les KP, se classifient en:

- Stimuli endogènes du stress: a) émotions négatives - l'incendie, péril de la vie, etc.; b) émotions positives - rencontre avec les parents, activités plaisantes et bien aimées.

- Excitants exogènes: auditifs, indicateurs visuels, topiques de la peau ou tactiles.

- Inconnus - KP apparaissent spontanément sans cause. Selon différentes sources d'information la durée des KP varie de quelques secondes jusqu'à quelques minutes, heures, jours. À l'aide des objets qui ont substitué le banal stylo

par exemple: stylo - seringue, marker, pinceau et grâce aux modalités de préhension du stylo on a observé des KP à l'écriture chez les patients examinés. À la marche on a constaté des KP induites par l'obstacle devant le parkinsonien.

Il y a plusieurs théories qui expliquent l'apparition des KP: une des ces théories acceptée par la majorité est que dans le cerveau humain il existe des structures où se déposent les réserves de la dopamine et à l'influence des certains stimulus se libère la dopamine. Le patient se trouve dans l'état de la KP jusqu'à l'épuisement de la dopamine puis le tableau clinique de l'akinésie revient. Autre théorie suppose la liaison entre les noyaux basaux et l'activité nerveuse supérieure. Il y a l'opinion que les analyseurs corticaux participent dans les fonctions des neurones dopaminergiques.

Conclusions. Le phénomène des KP joue un rôle pratique très important pour la compréhension et les traitements des dyskinésies dans la MP. Les résultats de l'étude des cas cliniques justifient l'actualité d'organiser un programme unique de la recherche des patients avec MP dans un centre spécialisé des dyskinésies. La standardisation des données, le monitoring des patients, des particularités et des variantes de la MP vont faciliter l'étude des dyskinésies et l'échange des expériences avec différents centres internationaux.

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Principles of Echocardiography in Mitral Valve Prolapse

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Detection and characterisation of mitral valve prolapse remains a common use of echocardiography. Early studies suggested a prevalence of prolapse of up to 10% in otherwise healthy young females. It should be emphasised that many individuals identified as having mitral prolapse in these earlier studies today be recognized to simply have normal bowing of mitral valve. The normal mitral valve closure pattern is for the tips of the leaflets to point forward the left ventricular apex and for these to be gentle bowing of the leaflet with a cavity toward the apex of the left ventricle. Based largely on dimensional reconstruction techniques, the mitral valve annulus is known not to be a planar structure but rather to have complex three-dimensional geometry. Depending on the imaging plane of interrogation, apposition of one or both leaflets may bow behind of the imaginary annular line. In the presence of otherwise anatomically normal thin leaflets, this represents a variation of normal and does not represent pathological mitral valve prolapse. The most extreme forms of mitral valve prolapse in valve myxomatous degeneration of the valves

with visible leaflet thickening (defined as greater than 3 to 5 mm in thickness) and either marked symmetrical bowing of the annular plane or highly asymmetrical buckling of one or both leaflets into the plane of left atrium with variable degrees of mitral regurgitation, which may be either holosystolic or continued to middle to late systole. Because of the eccentric buckling of the myxomatous valve, the mitral regurgitation jet can be eccentric rather than central. The key aspects to the diagnosis of mitral valve prolapse rely not on the mere detection of a valve that buckles into the plane of the left atrium but on characterisation of the valve morphology. As mentioned earlier normal thin leaflets that bow gently into the left atrial plane probably represent a variation of normal closure patterns. Patients with thick and redundant valves and myxomatous changes of the leaflet have a two-fold form of a structural heart disease. It is these individuals who are most at risk for endocarditis, spontaneous rupture of chordae and progressive mitral regurgitation.

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Pegasys and Copegus in the Treatment of Chronic Hepatitis C

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Objectives. To investigate the efficiency of the antiviral therapy management based on biochemical and virological response.

Materials and Methods. The study was conducted on 76 patients with chronic viral C hepatitis, in the period of 2007-2008, that were hospitalized in the Toma Ciorba Infectious Diseases Institute. All patients were divided in 2 lots: 1st lot (24 weeks treatment) – 45 patients (59.2%) and 2nd lot (48 weeks treatment) – 31 patients (40.7%); of which 26 (34.2%) were females and 50 (65.8%) were males, aged 36.4 ± 1.69 . Patients received Pegasys 180 μ g, per week and were randomized for both 24 and 48 weeks and were administered Copegus in doses of either 800 mg or 1000 mg/1200 mg (depending on the weight < 75 kg/ > 75kg). In order to confirm the efficiency of antiviral therapy the following test were done: hematological tests, liver function tests (ALT, timol test, prothrombin and bilirubin) and HCV RNA (PCR) at the beginning of the treatment, and at the end of 24 weeks and 48 weeks of monitoring.

Results. The efficiency of antiviral therapy was appreciated during and at the end of the treatment. There were persistently abnormal ALT levels in 54 patients (71.1%), high level of timol test in 43 patients (56.6%), bilirubin in 26 patients (34.2%) and low level of prothrombin in 24 patients (31.5%). The qualitative confirmation of HCV RNA (PCR) was made for 15 patients (19.7%) and the quantitative confirmation: 300-1.100.000 copies/ml for 27 patients (35.5%), and 1.100.000-9.000.000 copies/ml for 32 patients (42.1%), 37.141.150-40.000.000 copies/ml for 2 patients (2.6%). Viral genotype 1B was determined in 76.2%, viral genotype 3 in 19.1% and viral genotype 1B+3 in 4.7%. At the end of 24 weeks of monitoring, abnormal ALT levels were detected in 28 patients (36.8%), high level of timol test in 28 patients (36.8%), bilirubin in 15 patients (19.7%) and low level of prothrombin in 13 patients (17.1%). Undetectable HCV RNA (PCR) was achieved in 81.4% of the 1st lot and 77.8% of the 2nd lot. Early virologic response by 12 weeks (defined as HCV RNA undetectable or > 2 log₁₀ lower than baseline) was recorded in 25 patients

(55.6%) of the 1st lot and in 15 patients (42.86%) of the 2nd lot. At the end of 48 weeks of monitoring, abnormal ALT level were registered 17 patients (22.3%), increased of timol test in 15 patients (19.7%), bilirubin in 6 patients (7.9%) and low level of prothrombin in 6 patients (7.9%). Undetectable HCV RNA was achieved in 21 patients (67.7%) of the 2nd lot. Sustained virologic response (defined as an undetectable HCV RNA serum 6 months post-treatment) was recorded in 34 patients (75.5%) of the 1st lot. The persistence of HCV RNA during the treatment and at the end of it was detected in 9 patients (20%) of the 1st lot and in 4 patients (12.9%) of the 2nd lot. 2 patients (4.4%) of the 1st lot and 6 patient (19.3%) of the 2nd lot had an evident decrease of HCV RNA during the antiviral therapy. 6 patients (13.3%) of the 1st lot had an undetectable HCV RNA (PCR) during the treatment and the reappearance of HCV RNA during the 24 weeks post treatment. For hepatitis C patients, the most common adverse reactions reported for Pegasys and Copegus combination therapy observed were arthralgia - 69 patients (90.7%), myalgia – 65 patients (85.5%), anorexia – 56 patients (73.6%), headache – 47 patients (61.8%), fever – 41 patients (53.9%), irritability – 30 patients (39.4%), insomnia -28 patients (36.8%), pruritus – 12 patients (15.7%) and diarrhea – 1 patients (1.3%). Thrombocytopenia had 28 patients (36.8%) of the 1st lot and 10 patients (13.1%) of the 2nd lot. Leucopenia had 27 patients (35.5%) of the 1st lot and 11 patients (14.4%) of the 2nd lot. Pegasys and Copegus efficiency was demonstrated by the normalization of biochemical tests and the virological response.

Conclusions. 1. The efficiency of Pegasys and Copegus therapy was confirmed by biochemical tests and virologic response. 2. Undetectable HCV RNA (PCR) was achieved in 49 patients (64.5%) out of 76 patients with hepatitis C and 19 patients (25%) had an evident decrease of HCV RNA serum.

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Clinical Aspect of Atrial Fibrillation in Patients with Thyroid Gland Dysfunction

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Objectives. Appreciation of the thyroid hormones state at the patients with atrial fibrillation and determination of the peculiarities of the clinical presentation in dependence with the hormonal level and cardiovascular pathology.

Materials and Methods. In study took part 100 patients examined in Institute of the Cardiology during 2006-2008 for paroxysmal and persistent atrial fibrillation (AF) (in conformity with electrocardiograms (ECG)) in which were measured the values of the thyroid hormones – tri-iodothyronine (T3), and thyroxin (T4) and value of the thyroid stimulating hormone (TSH). The modifications in the hormonal tests were evident in 40% patients. They were divided in 2 groups: group I was consisted of 22 (55%) patients with hyperthyroidism, group II – 18 (45%) with hypothyroidism. Hyperthyroidism was defined by low values of the TSH, and high values of the T4 and T3 and hypothyroidism by high values of TSH and low values of T3, T4. Both groups have subclinical forms of the thyroid pathology represented only by modifications of the plasmatic concentration of the T3, T4, that is determined low in the hyperthyroidism and high in the hypothyroidism and at the same time with normal values of the T3, T4. The groups were compared by age, sex, cardiac and noncardiac associated condition: arterial hypertension (AHT), myocardial infarction (MI), ischemic modification of the ECG in repose, ventricular frequency in AF, congestive heart failure (CHF), type II diabetes mellitus (type II DM), hypercholesterolemia. From the study were taking off the patients with valvulopathy, those treated with amiodarone and patients with serious nonthyroidal pathology.

Results. The comparative analysis of the groups determined the predomination of the thyroid dysfunction in women; the ratio is 3:1 at the patients with hyperthyroidism

and 5:1 at those with hypothyroidism. The average age of the patients from group I was 51,8 years and from group II - 60,7. The ECG analysis determined medium ventricular frequency during the AF episode that is 104, 2 per minute at the patients with hypothyroidism and ischemic modifications of ECG in repose were present at 3 (16,7%) between them vs. 130, 7 per minute and no cases (0%) of the ischemia from the group with hypothyroidism. The presence of the cardiovascular affections was appreciated at 12 (54, 5%) between the patients with increased thyroid function and 15 (83, 3%) with lowering thyroid function. AHT was present at 14 (77,7%) patients, hypercholesterolemia at 15 (83%), but MI and type II DM had a rate 5,6% in group II vs. no one case of IM and type II DM, 12 (54%) patients with AHT and 4 (18,2%) with hypercholesterolemia in group I, signs and suggestive symptoms of the congestive heart failure class III-IV (NYHA) were appreciated in group I in 31,8 patients, group II in 5,6 patients.

Conclusions. Thyroid dysfunction is presented with the high frequency in patients examined for paroxysmal and persistent AF. Modifications in thyroid hormone tests results like hyper- and hypothyroidism are appreciated more frequently at women with AF. Thyroid hypofunction is manifested at the high ages and is associated often with another pathologies and factors of the cardiovascular risk as well AHT, MI, type II DM and hypercholesterolemia that eventually explains its high prevalence at the patients with AF. At the patients with AF and hyperthyroidism clinical results are more serious manifested by congestive heart failure associated with high ventricular frequency.

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Left Ventricle Dysfunction Induce Atrial Fibrillation or Vice Versa?

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Background. Atrial fibrillation (AF) is one of the most frequent cardiac arrhythmia, that affects 0,4% of the general population, often manifested by diverse heart failure (HF) degrees.

Objectives. To present a clinical case of a patient (51 years), who was hospitalized for the first time in the Clinic of Cardiology on the 04.04.2006.

Dyspnea and fatigability on reasonable exertion prevail in clinical characteristics. Mentioned complaints were installed slowly during last year. On the ECG – atrial fibrillation, tachysystole. The sure features that could confirm hypertension, heart coronary disease or other heart disease was absent.

The diagnosis was: Possible postinflammatory cardiopathy. Persistent AF (indefinite in time). HF III (NYHA).

Cordaron therapy 1g/day was initiated. Sinus rhythm (SR) was restored after 2 days. The patient was discharged with the recommendation to take Cordaron 200 mg/day. AF paroxysm was repeated in November 2006 during the treatment and he was readmitted in the Clinic of Cardiology. In spite of the Cordaron therapy, which dose was increased till 1200 mg/day for 3 days, then was slowly decreased till 400 mg/day (total dose 8 g), on ECG was registered AF. Subsequently, Trombostop 2,5 mg/day was administered for 3 weeks, then electric cardioversion was done. SR was restored with the

ambulatory Cordaron therapy 200 mg/day and Enalapril 10 mg/day indication. On the 20.06.07 address patient state was stable, with SR and a significant heart's function amelioration that was manifested through atrial and ventricle dimension reduction and an essential ejection fraction increasing.

The echocardiography parameters dynamic: Date (20.09.06): Left atrial (LA)-47mm; Left ventricle (LV)-55mm; Right atrial (RA)-49mm; Right ventricle (RV)-31mm; Ejection fraction (EF)-32-34%. Date(20.06.07): LA-39mm; LV-53mm; RA-38mm; RV-26mm; EF-53%. Date (08.04.08): LA-42mm; LV-52mm; RA-40mm; RV-26mm; EF-60%.

During the night of 04.04.08 an AF paroxysm appeared. The patient addressed in the Clinic of Cardiology in the first 12 hours. Drug cardioversion was initialized, with Propafenon administered initial 450 mg and after 6 hours 300 mg. After

8 hours from the beginning of the Propafenon therapy (total dose 750 mg), the SR was restored.

Discussions. AF could be frequently installed at the patients with organic heart diseases, particularly in HF. On the other hand, AF appeared on the healthy heart can lead a LV dysfunction and HF. This case presents an interest because at the first patient visit, he had persistent AF, LV dysfunction and dilated heart's chambers. What was primary? LV dysfunction, which induce AF or vice versa? SR maintain for 2 years with the LV function return at the normal and heart's chambers allow us to conclusion that possibly AF induced LV dysfunction, inclusively HF and not conversely. It isn't excluded that patient had supported an infectious (viral) myocarditis, but we don't have sure confirmation.

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Investigation of Tolerance to Physical Effort in Patients with Chronic Obstructive Pulmonary Disease

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Objectives. To investigate the tolerance to physical effort in 46 patients with moderate to severe Chronic Obstructive Lung Disease - COPD (II, III, IV stage according Global Initiative for Chronic Obstructive Lung disease - GOLD 2006) and also to determine the correlation between stage of COPD and the distance covered by the patients during 6 minutes.

One of the most important morbidity and mortality index in patients with COPD is lowered exercise capacity that can be measured with 6 minute walk test (6MWT) – a test that permits the evaluation of maximal admissible limit of physical effort that will not have negative effect on patient condition with COPD.

Materials and Methods. The method used was 6MWT (the patient covers a certain distance during 6 minutes, at the beginning and at the end of the physical effort blood pressure, pulse, PEF, FEV₁ and SpO₂ values were measured; during and at the end of the test were written down subjective symptoms of the patient), spirometry and pulse oximetry. Forty six patients (27 men and 19 women) medium age 58 ± 2 years (range 56-60 years), with history of COPD about 20 years, with history of smoking average 16 years pack, capable to perform 6MWT participated in this study.

Results. The results of 6MWT applied to patients with COPD II, III and IV stage are: PEF values increase (8% in patients with COPD II stage, 7% in patients with COPD III stage, and 6% in patients with COPD IV stage), FEV₁ values increase (5 % in patients with COPD II stage, and with 4% in patients with BPOC III and IV stage), SpO₂ values decrease(2% in patients with COPD II stage, 3% in patients with COPD III stage and 4% at the patients with COPD IV stage), blood pressure and pulse values increase. The distance covered by patients during six minutes strongly correlates with the disease stage (Pearson r=0.9, p<0.001) that represents 72,5% for COPD II stage, 56,7% for COPD III stage and 35,7% for COPD IV stage from predicted distance.

Conclusions. As a result of six-minute walk test, spirometry and pulse oximetry applied to 46 patients with COPD we established their disease severity according GOLD 2006 classification. We have demonstrated that tolerance to physical effort depends on disease stage being essentially lower in III and IV stage; the prognostic for these patients is moderate.

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Insulin Resistance and Disorders of the Lipid Metabolism

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Background. Metabolic Syndrome X (MSX) is defined by the association, in the same person, of the more risks factors of metabolic origin, with Insulin resistance (IR), hyperinsulinemia, abdominal obesity, arterial hypertension, hypertriglyceridemia, low HDL, altered glucose tolerance, disorders of haemostasis and fibrinolysis. MSX increases three times the risk of cardiovascular accident and five times the risk of development of type II diabetes.

Polymorphism of clinical symptom causes difficulties in the precocious diagnostic of MSX and in administration of adequate treatment.

Objectives. To study the modifications of the lipid metabolism in subjects with IR.

Materials and Methods. 30 patients (women) were examined. The glycaemia was determined, also was determined the basal insulin and was appreciated the lipid profile with the evaluation of atherogene coefficients.

Statistical processing was effected with the program StasDirect, the test of significance was determined (t), sill significance (p) and non parametric test Mann- Whitney U.

Interrelations were appreciated using simple linear regression, restored through correlation coefficient rxy.

Diagnostic criteria were used according to indicators IDF (2005).

Conclusions. (1). The evolution of Insulin resistance is characterized through indexes of corporal weight (BMI) as well as the increased ratio of waist/ hip, both dependent of age. (2). IR is accentuated by increased value of VLDL and decrease of HDL level. Evident changes were not detected in the content of total Cholesterol and of LDL. (3). TAG quantity has a major degree of correlation with β - lipoproteins (β -LP) and content of VLDL, BMI and much less with sanguine Cholesterol. (4). In Insulin resistance are detected the same risk factors as in MSX - indexes of corporal weight (BMI), β - lipoproteins (β -LP) and age, which correlates more veridical with the value of diastolic arterial tension. (5). Insulin resistance is characterized with a major atherogene coefficient and confirm that precocious phase of Metabolic Syndrome X.

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Surgical Sciences Section

Modular Mechatronic Device for Laparoscopic Applications

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Laparoscopy is a minimally invasive procedure used as a diagnostic tool and surgical procedure that is performed to examine the abdominal and gynaecological organs. Optical technologies such as laparoscopy allow surgeons to perform entire procedures with only minimal damage to the patient. There are many procedures in laparoscopy whereby the position resolution of the human hand is insufficient. In the same time the conventional surgical instruments are too bulky to be used in microsurgery. What are required to improve the present situation, are accurate and dexterous mechatronic tools with high position resolutions. The medical robots for surgical applications are ones successful solution of this problem. One attempt in this direction is the designed modular mechatronic laparoscopy device. The developed device, aimed at improving the performance of conventional microsurgical tools. The Modular Mechatronic Laparoscope Device consists of three major parts: a movable platform, a linear actuator and a steerable tip. The movable platform includes 3 separate actuators with moving permanent magnets and 3 absolute encoders are coupled to their shaft. The high resolutions of the encoders allow the positioning accuracy of the Modular Mechatronic Device very high. The platform is intended for use as flexible intermediate link between a computer-assisted laparoscopy system and the linear actuator. The distal part of

the steerable laparoscope incorporate the miniature camera which to assists the coordination and orientation of the tip in order to implement a good navigation system. Thereby, the surgeon could understand more precisely where he is and what he is looking at. The model allows obtaining the optimal working area of this Device and force feedback control. The developed Mechatronic Device could be applied in many areas of bloodless microsurgery. There are many areas in surgery where mechatronics can make a difference for the better. In most cases, both the surgeon and patient benefit from it. . The main benefits for the patients are: Shorter hospital stay - A majority of patients are discharged the same day or 1-day after the procedure. Less pain, less risk of infection - Robotic visualization and precision enable the surgeon to perform complex prostatectomy procedures meticulously with small incisions. Less blood loss and transfusions - Nerves and vessels are magnified 10-15 times giving the surgeon more accuracy while reducing the risks of excessive blood loss. Less scarring - The patients have reduced post operative scarring, as surgical incisions are much smaller. Faster recovery and quicker return to normal activities. Lower costs. The surgeon, on the other hand, will be able to perform more efficiently, more accurately and with less fatigue.

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Minimally Invasive Endoscopic Discectomy - Technical Note

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Background. Lumbar disc prolapse is a common problem and the current surgical standard for its treatment is a microsurgical discectomy. Mini-invasive endoscopic discectomy is a minimally invasive spinal procedure being done successfully for prolapsed intervertebral disk disease.

Objectives. To report the technique, outcome and complications seen in 41 cases of prolapsed lumbar intervertebral disc that underwent mini-invasive endoscopic discectomy.

Materials and Methods. 41 patients with prolapsed lumbar intervertebral disc who were seen at our institution were included in the study. Data was collected prospectively. The ENDOSPINE system (Karl Storz, Germany) was used

to perform mini-invasive endoscopic discectomy. Outcome assessment was done by EQ-5D and ODI criteria.

Results. 40 patients (23 males, 18 females) underwent mini-invasive endoscopic discectomy for prolapsed lumbar intervertebral disc. Follow up ranged from 2 to 22 months with a mean follow up 6,1 months. Thirty patients (73,3%) had an excellent outcome, 8 (19,3%) patients had a good outcome, 2 (4,9%) patients had a fair outcome and 1(2,4%) patient had a poor outcome. Complications included dural tear (2), and recurrent disc prolapse (1).

Conclusions. Mini-invasive endoscopic discectomy is a safe and effective procedure for the treatment of prolapsed lumbar intervertebral disc.

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Right Portal Vein Ligation in Hepatic Surgery. Clinical and Experimental Study

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Background. Liver surgery has registered a huge development in the past two decades. The introduction of portal embolisation and right portal vein ligation (RPVL) by Makuuci in 2001 made former inoperable liver tumours resectable.

Materials and Methods. We took into account both an experimental and a clinical study.

Experimental study: between 2006 and 2008 we performed RPVL on six lab swine - animals of the Great White species. Within a month period we operated again on the same animals performing total hepatectomy and biopsy of both left atrophic and right hypertrophic hepatic lobes. We also made a comparative quantitative study between left and right liver lobe mass.

Clinical study: it regards the patients who underwent RPVL in the 1st Surgical Department. Starting with 2005, there

were 3 patients, who were suitable for RPVL and two step hepatectomy: 2 of them with huge, multiple colorectal cancer metastases and 1 with giant bilobar haemangioma.

Conclusions. The experimental study points out the histological features of the atrophy-hypertrophy sequence after unilateral portal vein ligation on experimental animals. The clinical study reveals postoperative outcomes of portal vein ligation in our patients. RPVL is a safe procedure with a well standardized technique and no mortality that converts once inoperable tumours into resectable ones. Vein ligation (RPVL) in our patients is a safe procedure with a well standardized technique and no mortality that converts once inoperable tumours into resectable ones.

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Abdominal Lymphatic Cysts in Adults

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Background. Abdominal lymphatic cysts (ALC) are uncommon and clinically confusing lesions in adults. Based essentially on histopathological features ALC are divided in 2 groups: (1) simple lymphatic cyst (congenital malformation of lymphatic vessels), and (2) lymphangioma (congenital malformation or neoplastic origin). Lymphangioma occurs usually in children and is localized mostly in the head or neck and detected occasionally in adulthood at various other anatomic sites. Only 2-8 % of lymphangiomas are localized intra-abdominally.

Objectives. To evaluate the preoperative diagnosis, radiological features, surgical treatment, and outcome of this rare condition (ALC).

Materials and Methods. This retrospective study examined seven consecutive pts with ALC in adults (6F:1B, mean age 41.4±6.02, range-23-62), treated from 2000 to 2007 in two surgical units. Symptoms and signs included evidence of chronic abdominal pain (n=7) abdominal distension (n=2) or palpable mass (n=7). History of symptoms was 8.7±2.8 (1-24) months. USG and CT scan demonstrated a cystic lesion, but only in two cases the diagnosis of ALC was established preoperatively. At CT the contents were usually of fluid attenuation (5-10 UH). Tumour size ranged from 5 to 15 (10±1.5) cm.

Results. Intraoperative ALC were located in the mesocolon (n=5), small bowel mesentery (n=1), and pancreas (n=1). In all cases, tumours were completely excised without resection of adjacent organs. Macroscopically ALC presented as mono- or multilocular cysts (5 vs. 2) and contained chylous fluid. Final pathological report revealed simple lymphatic cyst (n=5) and cavernous lymphangioma (n=2). The diagnosis of lymphangioma was confirmed using three standard histological criteria: (1) cyst lined by a flat endothelial epithelium, (2) small lymphatic spaces, and (3) abundant lymphoid tissue, according to J.G.Allen et al. (2006). Postoperative morbidity and mortality was zero. Follow-up ranged between 2 months and 6 years. All had symptomatic relief after resection, and no patient showed evidence of recurrence in this time period.

Conclusions. ALCs are rare lesions and predominate in female patients. The correct preoperative diagnosis is difficult. The treatment of choice is complete surgical resection. Intraoperative differentiation between lymphatic cyst and lymphangioma is of utmost importance, and can only be achieved by pathohistologic examination of the cyst wall. When completely resected, these lesions seem not to recur, and the overall prognosis is excellent.

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Lumbar Hernia and Difficulties of Diagnosis. Case Report

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Background. Lumbar hernias are rare explaining the few cases published and the diagnostic difficulties.

Case report. A 12 year old female was admitted to Oncology Institute with diagnostic of malign abdomen tumour.

Clinical examination revealed a painless tumefaction situated at L₂-L₄ vertebra that disappeared and appeared at minimal effort; distortion of the pelvic bones, as a result of shortening of the inferior left extremity. Earlier the patient was admitted to the Emergency Hospital with the vertebro-sacral algic syndrome. MRI was performed and the doctor put a diagnosis of malign tumour of retroperitoneal space.

Further the patient has been examined in Oncology Institute clinic imagistic complex:

Thoracic standard radiography was normal. Abdomen radiography revealed orthostatic scoliosis on the left side, pelvic bones distortion, anomaly of right psoas muscle insertion. Intravenous renography showed normal morphology and function of the kidneys. Abdominal ultrasound revealed no data about volume formation in abdomen in retroperitoneal space. CT with gastrographin in gastrointestinal tract revealed development anomaly of gluteus muscle, anomaly of psoas muscle insertion, distortion of the pelvic cavity bones, mixed lumbar hernia of

Jean-Luis Pet triangle and Grynfeltt quadrilaterum inside hernial cavity which migrated during respiration, sneezing. tumour of the colon has been determined.

Patient was transferred to Trauma Republican Hospital hernioplasty. At the moment, the patient is discharged, being supervised by surgeon.

Discussions. Approximately 10% of all lumbar hernias congenital and the vast majorities are unilateral. Congenital lumbar hernias are rare abdominal parietal defect in infants and children. It is being diagnosed the most of the time in neonatal period. In our case, this pathology was asymptomatic the first 10 years. During puberty the patient manifested lumbo-cos vertebral syndrome, caused by rapid growth. In this period she has had already some development anomalies, because of weak muscle tonus that wasn't able to support a normal vertebral column, which induced the appearance of clinical symptoms. In our case, the lumbar hernia is congenital in association with psoas right muscle insertion anomaly (which caused pelvic bones distortion and as a result shortening of inferior extremity), development anomaly of gluteus muscle on right side, and scoliosis on the left side. Taking in account the enumerated details the case is unique.

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Thoracic Aortic Aneurysm

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The aneurysm represents an enlargement of the aortal diameter, associated by an asymmetry of its borders. The abdominal forms are three times more frequent than thoracic ones. Anatomic-pathologically speaking there are: true and false aneurysms. True aneurysms have all three parietal tunics as a wall. They appear after a preliminary general or local frail of the aortic wall. That may be degenerative, swelled or complicated by diseases of elastic tissue. The false aneurysms appear after localized ruptures of aortic wall with blood streaming, the blood accumulated being localized by the adventives. A fibrous reaction is initiated around this partial-circulate hecatomb. The false aneurysms develop post-traumatically, post-surgically or in different mycosis. Long time the aneurysm is asymptomatic, being found based on the following symptoms that may occur: (1) a rupture, associated by a transfixing pain and hemorrhagic shock; (2) compression of an adjacent organ or thrombembolic complication. The therapeutic principle of prosthetic replace or endovascular treatment by covered prosthetics valves present risk of rupture, too. The principal indication is based on the dimensional criterions—measuring the aneurismal diameter and its evolution—controlled oversee. The aetiology

of thoracic aneurysm varies depending on its location. Segment I Thoracic aneurysm's location is typically for the segment 0 (zero) and initial portion of segment I (40%). It is associated with following: Marfan's syndrome (1/3); Idiopathic annulus ect (2/3); Aortic dissection (10%) influenced by aortic dilatation (segment 0 > 55 mm), arterial hypertension and isometric effort. Aortic inflammations; Aortic valve's abnormalities. The examination for measuring aortic diameters and valve function is trans-thoracic echocardiography (TTE). All results are obtained on a plan placed perpendicular towards aorta. It includes 5 cavities (entrance and exit of left ventricle). Evaluations are done in conformity with patient's age and sex. Segment II (affected in 10%) and Segment III (affected in 50%) have the same aetiology. Atherosclerosis (2/3 of cases); Trauma (5 %); Inflammatory and Infectious Diseases. Imagistic overview is based on determining aneurismal position, diameter, length, relations with collateral vessels. Aortic aneurysm represents an indication for surgery, excepting the cases when diameter of ascendant portion is less than 55 mm and descendent less than 60 mm. In Marfan's syndrome contraindications are less than 50 mm and 55 mm.

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Diagnosis Pitfalls of Acute Anterior Cruciate Ligament Injury

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Background. A complete clinical diagnosis in acute knee-trauma remains often difficult to establish, due to pain, muscle tension, hemarthrosis and oedema, which preclude an optimal joint stability examination. Often, upon the initial radiographic assessment of the injured knee, a typical lesion can be observed which indicates associated ligament injury and/or meniscal tears. Segond fracture is suggested to be an avulsion fracture of the lateral tibial rim that occurs in flexion, by forced internal tibial rotation and varus. The Segond fracture is an important radiographic sign that is critical to recognize because it is generally associated with anterior cruciate ligament disruption and lesions of the menisci, cartilage and joint capsule.

Objectives. To study retrospectively the mechanism of injury and the extent of knee injury in 4 patients with a Segond fracture at the radiographic examination following acute knee trauma.

Materials and Methods. All 4 knee injuries occurred with skiing accidents during January – February 2008 and were treated at our department with arthroscopic anterior cruciate ligament reconstruction. All knees were evaluated preoperatively with clinical stability tests, x-ray and MRI. An association was found between the Segond fracture and lesions of the anterior cruciate ligament (all cases), menisci (one case) and medial collateral ligament (2 cases). The

associated medial collateral ligament lesions could indicate that a compressive force in the lateral femuro-tibial joint may exist and that a Segond fracture can result from a valgus stress also. Reconstruction using ipsilateral hamstrings (gracilis and semitendinosus) tendons was performed in these patients, using the Single Bundle technique.

Results. Postoperative evolution was without incidents. In 2 cases, the Segond lesion could no longer be identified on x-ray at 3 weeks from injury.

Conclusions. A highly detailed history of the trauma sequence is needed in order to fully understand the mechanism of injury. The exact pathogenesis of Segond fracture remains controversial due to the complex ligamentous anatomy of the lateral aspect of the knee. Although cases of isolated Segond fracture have been discussed in literature, our series indicate that Segond fracture is associated at least with an ACL injury. Therefore, the radiographic evidence of Segond fracture remains a useful diagnostic sign of knee ligament injury, especially when clinical tests are less relevant. Also, the incidence of Segond fracture could be much higher than previously thought.

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Recurrent Post-Traumatic Patellar Instability – Our Approach

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Background. Recurrent patellar instability is a common problem after traumatic dislocation. The medial patellofemoral ligament (MPFL) is a condensation of the medial capsule of the knee joint that extends from the superomedial border of the patella to the femoral epicondyle, immediately above the adductor tubercle. The MPFL is approximately 55 mm long, and its width ranges from 5 to 30 mm, varying from individual to individual, but not from side to side. The MPFL has been recognized as the most important medial structure preventing lateral dislocation or subluxation of the patella and is almost constantly injured by lateral patellofemoral dislocation.

Objectives. To assess the clinical outcome of MPFL reconstruction with hamstrings tendons autografts, and to review the functional anatomy of the MPFL and its involvement in patellar dislocation.

Materials and Methods. We retrospectively analyzed the cases of 19 patients (8 male, 11 female, mean age 17.9 years, 20 operated knees) who received MPFL reconstructions for post-traumatic patellar instability at our department between January and December 2007. All cases had a history of post-traumatic patellar instability. All reconstructions were

performed using ipsilateral semitendinosus tendon autograft fixed with 1/2 anchors in the patella and 1 resorbable screw in the medial femoral epicondyle tunnel. Fixation was achieved with an absorbable interference screw at the femoral tunnel and with 2 anchors at the patellar tunnels. The grafts were tensioned in approximately 30 degrees of extension while fixed at the medial femoral epicondyle tunnel.

Results. Good patellar stability was achieved in 18 patients (19 knees), and subluxation occurred postoperatively in one patient. Chronic pain at follow-up occurred in 3 cases, which had been also identified with patello-femoral cartilage damage at surgery.

Conclusions. MPFL reconstruction with double transverse patella drill holes and semitendinosus tendon graft provides adequate patellar stability provided the graft is properly tensioned in 30 degrees of extension, and is technically less demanding than other procedures. Postoperative pain appears to be influenced by the degree of preexisting patellofemoral injury. We consider this procedure to be the method of choice for post-traumatic patellar instability.

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New Trends in Anterior Cruciate Ligament Reconstruction

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Background. The ACL consists of 2 bundles: a larger anteromedial bundle (AMB) and a posterolateral bundle (PLB), named according to their tibial insertion sites. The AMB and PLB are oriented almost parallel with the knee extended, and twist around each other as the knee is flexed. Both bundles are crucial for knee stability. Conventional Single Bundle (SB) ACL reconstruction techniques have focused on the restoration of the AMB, ignoring the equally important PLB.

Objectives. To examine the surgical considerations and clinical outcome of Double Bundle (DB) Hamstrings graft ACL reconstruction, and compare this technique with another popular surgical approach of ACL deficiency: the SB Hamstrings technique.

Materials and Methods. Between July 2007 and December 2007, 57 patients (30 male, 27 female, mean ages 27.3) received Hamstrings ACL reconstructions (28 DB, 29 SB) at our department. Associated injuries and procedures, surgical techniques and early postoperative rehabilitation were retrospectively analyzed and compared. Patient records were reviewed, and patients with previous knee surgery, associated knee lesions and/or procedures were excluded. The remaining DB and SB groups consisted of 17 (7 male, 10 female, mean age 25.6) and 18 patients

(8 male, 10 female, mean age 29.6), respectively. Operating Time (OT) and Tourniquet Time (TT) were extracted from patients' arthroscopy files and compared between the 2 groups. Mean DB - OT was 85.1 minutes versus 56.4 minutes for SB, while DB - TT was 76.5 minutes versus 47.6 minutes for SB.

Results. The long-term clinical outcome of the DB procedure is yet to be determined, but complications such as graft impingement, limitation in range of motion, and residual rotational instability have not been observed to date in the first 28 patients who have undergone this reconstructive technique at our department. Although financially and technically more challenging, the DB ACL reconstruction appears to restore knee stability and prevent rotational instability better than the SB due to the concurrent restoration of the PLB.

Conclusions. Still, there is a big issue concerning reproducible tunnels both in the femur and tibia, as well as bone bridges. All inside techniques with retrodrilling may be an answer to this problem. Currently, our choice is to use the DB technique with younger patients, who will potentially have a higher long-term benefit from this more demanding procedure.

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Basic Surgical Skills Training for Medical Students – What Can Be Improved?

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Background. The Basic Surgical Skills Course of The Romanian Student Surgical Society is an initiative created by the medical students with the purpose of lowering the gap between the theoretical and the practical abilities of the medical graduates in Romania. The six module course offered the attending students the possibility of achieving basic surgical abilities outside the hospital environment, and assessing their aptitudes. The course curriculum included: asepsis measures, basic instruments, surgical knots and sutures, wound management, bandages, dressings, common surgical manoeuvres, haemostatic ligatures, intestinal resection and anastomosis, vascular surgery basics and laparoscopic basic training. A team of doctors and professors of various surgical specialties was involved in delivering presentations and supervising the workshops. The same team of instructors also evaluated the students' progress using individual objective assessment forms with scoring.

Objectives. To determine the effectiveness of our training program, thus providing a good feedback for the organizers in perfecting our teaching methods.

Materials and Methods. Over 9 month period (March 2007-

December 2007), 180 medical students (3rd to 6th year of study) from 6 universities participated in 9 BSS courses and were included in the study. The students were asked to fill in a self evaluative entrance and exit questionnaire. Previous surgical experiences, theoretical knowledge, level of confidence in performing basic surgical manoeuvres were enquired. At the end of the course, the students were required to perform a complex task such as a termino-terminal anastomosis on pig intestine and they were evaluated by the team of instructors using a standardized Objective Structured Assessment of Technical Skills survey.

Results. The study revealed that 80% of the student had little or no previous surgical experience and a low level of confidence in performing surgical techniques. At the end of the training course, the autoevaluation showed significant improvement in both theoretical knowledge and practical skills, which correlated with the objective evaluation performed by our instructors. The students endorsed the course as relevant, practical and an enjoyable learning experience.

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Manual Administration of the Hypnotics and Opioid Drugs during Total Intravenous Anaesthesia: End of an Era

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Background. The uses of computerized systems in anaesthesia practice have revolutionized contemporaneous anaesthesia by means of real-time and an individualized mathematical modelling of the anaesthetics' pharmacokinetics - the component part of modern anaesthesia stations software. Thus, it is observed a shift from the "administrate 100 µg or 2 mL of Fentanyl for every 20 minutes" approach to that of "creates a cerebral concentration of 4 ng/mL of Fentanyl in 3 minutes and maintain it for 12 minutes for this patient", for instance. After some initial contradictions, the advantages of the computerized techniques regarding security, convenience, and time and resources savings have been proved. The first TCI (target-controlled infusion) pump, used in day by day anaesthesia practice was „Diprifusor", launched at the World Anesthesia Congress held in Australia in 1995. In Moldova, the computerized anaesthesia concept and the accompanying techniques (TCI, TCS and TCA) were brought and practiced by Adrian Belii in 2005, and respectively in 2007.

Objectives. By pharmacokinetics modelling it is also possible to evaluate performances of the „classical" total intravenous anaesthesia (TIVA-C), using manual intermittent intravenous administration of the hypnotics, opioid and miorelaxant drugs. Thus, we decided to evaluate the performances of the TIVA-C by answering the following questions: 1) Which were the cerebral concentrations (Ces) of Thiopental (T), Diazepam (D) and Fentanyl (F), achieved at the awakening stages (the moment of spontaneous recovery of respiration, eyes opening and extubation)?; 2) For what inter-anaesthetic period Fentanyl's Ces was appropriate for the surgery moment?; 3) Was the patients' extubation conducted at safe Fentanyl's Ces for maintaining spontaneous respiration?; 4) With what precision can be forecasted the patient's extubation moment?

Materials and Methods. The study was carried out using Stangraph software by retrospective pharmacokinetics

modelling of 27 patients' files that had abdominal surgery. Data are shown on average and standard deviation (M±SD) form. The

Spearman (R^2) Test was applied in order to reflect the correlation degree between phenomena.

Results and Discussions. Registered Ces were: at the moment of spontaneous recovery of respiration ($D=0,18\pm0,36$ µg/mL, $T=0,86\pm0,95$ µg/mL, $F=1,87\pm0,40$ ng/mL); eyes opening's moment ($D=0,11\pm0,07$ µg/mL, $T=2,3\pm3,13$ µg/mL, $F=2,14\pm0,56$ ng/mL); extubation moment ($D=0,03\pm0,02$ µg/mL, $T=0,44\pm0,79$ µg/mL, $F=1,68\pm0,30$ ng/mL). Appropriate Fentanyl's concentrations for the entire duration of the surgery were registered only in 17% of the observed cases. In 44%, Ces were excessive for a period of $41\pm23\%$ of surgery's duration and variable (excessive \ insufficient), for a duration of $54\pm22\%$ respectively. Later, each 5th extubated patient needed supplementary „stimulation" of the respiration. With precision it could be predicted only the spontaneous respiration moment ($R^2=0,78$). Using TIVA-C, the exact moment of the patient's extubation could not be predicted ($R^2=0,04$). Pharmacokinetic profiles of the hypnotics and opioids are independent each of other. The accuracy of the moments' forecast and a more accurate evaluation of the anesthetization's quality require further studies of the pharmacodynamics relation between opioids and hypnotics by isobolographic modeling or Minto models.

Conclusions. Intermittent manual intravenous administration of the anaesthetic drugs doesn't assure the anaesthesia quality and patient safety according to contemporaneous requirements. The precise and safe moment of the patient's extubation could not be forecasted by the TIVA-C; It is imperative to substitute the manual method of the anaesthetic drugs administration by the mechanical one (perfusion pumps) or computerized one (TCI-perfusion pumps).

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Treatment and Complications of Hepatic Hydatid Disease - Retrospective Analysis of 455 Cases

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Background. Hydatid disease is a parasitic infestation by a tapeworm, *Echinococcus*, with 3 species of medical importance: *Echinococcus* (*E*) *granulosus*, *E. multilocularis*, *E. vogeli*. Hydatid cyst pathology is endemic in Mediterranean countries and south-eastern Europe, therefore the retrospective analysis of the infections treated in our centre is relevant and important.

Objectives. To present the available treatments and analyze the complications of this infection.

Materials and Methods. Using the patient database of the Centre of General Surgery and Liver Transplant, Fundeni Clinical Institute, we selected all the cases of hydatid disease operated between 2002 and 2006. From the 500 patients analyzed, 45 have been excluded from this study because of surgery performed to treat complications appeared after having supported surgery in other medical centres. On the final lot, consisting of 455 patients, for our analysis, we followed the type of intervention, hospital days, complications and other parameters.

Results. The patients have a mean age of 42 years (+/- 20,96), sex ratio F:M=1,42, between 1 and 17 hydatid cysts, with an average of 1,53 (+/- 1.45), 21.1% of them located

in the left hepatic lobe, 59,56% in the right hepatic lobe and 19,34% in both hepatic lobes. 34 interventions were laparoscopic, 11 were echographic guided percutaneous drainages, the rest being classic open surgery. The types of surgical procedures were: 394 partial pericystectomies, 28 ideal cystectomies, 20 hepatic resections, 2 laparoscopic cysto-jejuno anastomosis. In 84 cases biliary fistula suture was needed, 51 patients needed external bile drainage with Kehr tube and for 17 patients total vascular exclusions were necessary. Regarding the complications, the most frequent of them was biliary fistula (120 cases). Other complications were: simultaneous hydatid disease in other organs (20), abscesses and suppurations (20), and anaphylactic shock, hemoperitoneum, choleperitoneum, hemothorax, deep vein thrombosis, evisceration. From the 4 deaths registered, 2 were because of pulmonary thromboembolism and 2 from sepsis.

Conclusions. The surgical treatment of hydatid cyst is efficient as long as pre and post-op complications are well documented so they can be prevented or successfully treated.

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Primary Anastomosis for Large Bowel Obstruction

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Objectives. To evaluate the outcomes of surgical treatment using primary anastomoses in large bowel obstruction.

Materials and Methods. The authors present the preliminary results of a prospective study of 22 consecutive patients with total large bowel obstruction treated with resection and primary anastomosis. In the study were included 12 male and 10 female with the mean age of 63.73±3.24 (22-82) years. The level of obstruction was: cecum (n=2), right colon (n=1), transverse colon (n=1), splenic angle (n=5), descending colon (n=2), sigmoid colon (n=7) and rectosigmoid colon (n=4), the cause of obstruction was: adenocarcinomas – 21 and a single case of leiomyoma. Bowel decompression was achieved using 2 methods: 1) intestinal lavage-19 (anterograde-16, retrograde-3) and 2) manual – 3 cases, mean solution volume used for lavage was 14.1±0.78L. In 10 cases left-sided hemicolectomy was performed, segmentary resections were

performed in 8 patients. right-sided hemicolectomies-3, and transverse colon resection-1 case. Hand applied anastomosis were performed in 16 cases, while staplers were used in 6 patients. For every patient Mannheim Peritonitis Index (MPI) and Peritonitis Severity Score (PSS) were appreciated.

Results. Specific complications – anastomotic leak installed in 2 cases, one necessitating colostomy. Postoperative death rate was zero. A statistically significant difference of MPI and PSS in patient with and without anastomotic leak-19.3±1.06763 vs. 26 (p<0.001) and 7.65±0.35 vs. 9 (p<0.001) respectively was determined. Mean survival rate is 59.82±11.24 (4-260) weeks.

Conclusions. Primary anastomoses in patients with large bowel intestinal obstruction can be safely used when MPI and PSS do not exceed 20 and 8 respectively.

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Common Anaesthesia Errors and Their Prevention

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Background. Although anaesthesia is an indispensable element for nowadays medical procedures, its safety and effectiveness remains to be not always at the highest level. That is why, knowing the possible mistakes occurring is an important guideline in the practitioners' activity, in order to avoid such cases. Different mishaps in this field have their common consequence, being either physical injuries, or some complications to arise soon after. Considering these, the necessity to remark some often reported data on this issue, claims to its evidence.

Materials and Methods. There has been made a bibliographic study regarding the patterns of this domain, analyzing recourses from international anaesthesiologists' associations, journals, articles prints, some web pages consulting the issue discussed, as well as a number of national and foreign specialized monographs. All the gathered information was directed to reveal most important aspects related to our review's interest.

Results. It has been established that the most frequent anaesthesia mishaps are respiratory complications, equipment malfunction, drug errors and peripheral nerve injuries. Respiratory complications, represented mostly by airways injury (nose, larynx, pharynx, trachea), have informative signs, such as chest and cervical pain, cough and dyspnea, leading to proper further rehabilitation. Usual incidents

concerning equipment include breathing circuit disconnection, inadvertent gas flow change, syringes swap, intravenous apparatus disconnection and premature extubation, all these being treated particularly as human failures. Drug errors have several types, namely error in labelling, preparation errors, equipment and route of administration errors, and are possible to minimize by skilled assistance, full-time supervision along with the equipment checkout. Similar malpractice can lead also to awareness during anaesthesia, greater in trauma and cardiac surgery, the suggested avoiding measure considered vigilance. As for peripheral nerve injury (ulnar nerve, brachial plexus, lumbosacral root and others) it is relevant to be seen both in regional and general anaesthesia. The majority of cases have uncertain aetiology, some of it like nerve compression, stretching of nerve or ischemia, the prevention keys serving techniques as correct and attentive positioning and padding off all pressure points.

Conclusions. The administrative factor plays an essential role in this kind of iatrogenic mistakes, together with some general causes conducting to similar events, precisely: inadequate total experience, bad familiarity with the objects to deal, inattention, haste, fatigue, failure in routine checking, visual field restricted etc. Thus, being aware of it, many of the incidents alike shall be avoided.

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Use of Tissue Expansion for Reconstruction of Post-Burn Alopecia

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Tissue expansion has become a very useful tool in reconstruction of aesthetic and functional burn sequela. Scalp alopecia is common burn sequela that involves the head region. Most frequent alopecia is localized in frontal, temporal, and parietal areas. The correction of posttraumatic alopecia is a difficult problem for reconstructive surgeon. The currently accepted approach to large burn scalp alopecia is scalp expansion. The use of inflatable soft-tissue expanders has brought reconstructive surgery into a new dimension. A study on tissue expansion in post burn scar treatment was made in the Burns Centre, Traumatology- Orthopedics and Champaign Surgery Chair from Moldavian Medical State University „Nicolae Testemitanu”. During the period 1999 – 2005 tissue expansion was performed in 106 cases of different post burn scar localization. 21 cases were performed for scalp alopecia treatment: 6 men and 15 women, aged between 4 and 42 years. According to the McCauley classification it was registered type IA alopecia - 10 cases, type IB alopecia - 8

cases, type IC alopecia - 3 cases. In 6 cases a single expander was used, 15 cases – 2 expanders. This group was analyzed by several principals: age, sex, alopecia location and type, defect size, indication, operative technique, expander quantity, reexpansion frequency, results and complications.

In conclusion it is recommended to expand scalp flaps prior to transfer, and it is shown that to achieve greater expansion secondarily, the expanders can be reinserted and the scalp reexpanded as needed. The expansion technique provides a quantity of tissue of similar colour, texture, and hair-bearing qualities for reconstruction of adjacent defects and makes secondary reconstruction of donor site unnecessary. After a minimum follow up of at least 1 year in each case presented we have determined that the method is safe, simple and reliable and provide excellent aesthetic results and a high patient acceptance and satisfaction.

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Face Burn Management: The Betadine Role

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The basic concern in face burn management is for function, comfort and appearance. Face is involved in 40-50% of patients with burns admitted to the Moldavian Burn Centre. Scarring of the face, as a consequence of burns will often have a detrimental effect on function and aesthetics, and may cause negative effects on psychosocial wellbeing. What the best treatment is for facial burns, minimizing scarring, is unclear. In our clinical practice good results are felt to be achieved by treatment of facial burns with betadinum. To substantiate the perceived advantages of betadinum, its efficacy is compared to current alternative antiseptics used for care. The efficacy of treatment is assessed in a prospective clinical trial. Efficacy is analyzed in terms of number of patients requiring surgery and functional and aesthetic outcome. 477 patients with deep and extensive burns under various programs of local surgical treatment were investigated. 187 patients burn wounds (reference group I) were treated by applying common dressings with 5% Furacilline solution or Ectericide, while the injuries of other 290 victims (group II) were treated with

1% “Betadine” solution and applications of water-soluble ointments. All the related facts show certain advantages of the applied method in curing the patients with deep and extensive burns through early chemical necrotomy of the burn scabs and immediate autodermoplasty of the plagues while using modern antiseptics as 1% Betadine with a great bactericidal potential. The treatment of severe burns with sol. Betadini of 1% favours crust early formation, within 3-5 days and reduces the percentage of pathogen germs. The inconveniences of applying this method such as easy pain in the first 6 hours, necessity to use fresh solution, are minor. On the other hand, the advantages are major: destroyed tissues activation, the cheap treatment, it is simple both for the surgeon as well as for the patient, easy and exact applying and the mortality decreasing. The obtained results show that this method of treatment is superior to the classical one. By evaluating the efficacy of different treatment strategies, we aim to optimize the standard of care of facial burns.

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Treatment of the Leg Skin Defects by Plasticity with Medial Plantar Flap (MPF)

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Objectives. 1. To make a bibliographic study of MPF using. 2. Anatomic study of medial plantar region in flaps harvesting. 3. Clinical study of the treated patients by MPF plasticity. 4. The results analysis of the leg skin defects with medial plantar defect.

Materials and Methods. Anatomical investigations by injection of 1% verdis nitentis in cadavers for understanding of MPF migration possibilities have been performed. Clinical material includes 10 fresh cadavers (20 feet) which were performed at the Republican Centre of Legal Medicine.

Results. Dissection on unfixed cadavers permits us the exceptional mobility demonstration of migrant insular MPF. There are two possible directions of migration: 1. Proximal: A. Classic type centred on medial plantar artery being sensible; B. MPF with prolonged pedicle on posterior tibialis, sectioning and connecting lateral plantar artery. 2. Distal: A. MPF retrograde vascularization, blood flow being from the

deep plantar arch and plantar artery; B. „Revers” MPF based on lateral plantar artery with „Y-V” application technique of lengthening of vascular pedicle.

Conclusions. 1. Analysis of the bibliographic study shows that MPF is indicated in the plantar defects plasticity having similar tissues with plantar and enervation ones, it resists on leg plantar function. 2. Medial plantar anatomy permits the migration of flaps into two proximal and distal variants. Under its incidence there are anterior localized defects until the proximal base of the plantar surface as well as on the exterior leg ones. 3. Clinical study of the treated patients with MPF shows that the calcaneous region is the most covered and the planta remainder, but the covering of other parts is performed as an exception in alternative variant absence.

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Role of "Golden Hour" Strategy in the Management of Critical Trauma Patients

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Objectives. According to data from literature 65.92% of the all deaths in trauma are caused by critical injury. A "Golden Hour" strategy is described as time (60 minutes) during a second peak of deaths after trauma, when it is largely attributed to hypoxia and exsanguinations (haemorrhage). The role of "Golden Hour" strategies in the management of critical trauma patient is not defined. We studied influence of "Golden Hour" strategies on survival and duration of treatment in ICU (Intensive Care Units) in critical trauma patient.

Materials and Methods. A nonrandomized retrospective study was performed. The study included 165 patients (Archive of National Centre of Emergency Medicine 01.01.2001-31.12.2007), with age between 18-79 years, 126 male and 39 female. Mortality Probability Model (MPM III) 5-97.6%. New Injury Severity Score (NISS) > 24 points. Revised Trauma Score (RTS) 1.31-7.841 points.

Criteria of admission in the study: Patients, who were admitted in acute period of trauma; NISS >24 points as criteria of critical trauma. Patients were divided in 2 groups: Group A-

early admitted patients (less then 1 hour after injury); Group B - late admitted patients (more then 1 hour after injury).

Results. Groups Number of patient Gender (m/f) Age, average value RTS, average value, points MPM III, average value, % Duration of treatment in ICU, days Survive, %: A 83 61/22 34,5±13,1 5,4±1,5* 72,3±23,7** 20,7±7,2 56,6; B 82 65/17 38,7±16,2 5,7±1,3* 70,8±22,2** 25,3±10,9 37,8 *p<0.05 **p>0.05 The groups are comparable according to the number of patient, gender and age. In both studied groups men prevailed, that is in accordance with data from literature. Groups are comparable according to MPM III, RTS (p<0.05). Survive in group A was 56.6% and 37.8 % in group B (p<0.05). Duration of the treatment in ICU was 20.7±7.2 days in group A and 25.3±10.9 days in group B (p<0.05). Time of admission is a prognostic factor for critical trauma patients.

Conclusions. "Golden Hour" strategies in critical trauma significantly increase survival rate and mean duration of treatment in ICU.

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Traumatisme Thoracique Grave Complicue avec le Syndrome de Detresse Respiratoire chez l'Adulte (SDRA) (Cas Clinique)

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Le but. Le traumatisme thoracique représente la deuxième cause (17-22 l'origine de SDRA, après le sepsis. SDRA est responsable d'une mortalité de cas sont%, dont les causes directes de la mortalité en 6-11%50-70 l'insuffisance respiratoire (IR) irréversible et l'acidose respiratoire. Dans ce cas clinique on présente qu'une prise en charge complexe d'un traumatisme thoracique grave complicue avec SDRA a favorise son sortie d'hôpital dans un état satisfait après 38 jours.

Matériels et Méthodes. Les examens cliniques et de laboratoires ont permis d'établir le diagnostic de SDRA chez ce patient et de surveiller l'évolution du dernier.

Résumé. Le patient, 46 ans, est entre d'urgence dans le service de Soins Intensive, Hôpital Rational, après un accident voie publique. Diagnostic d'entre: Traumatisme ferme de la cage thoracique. Fractures doubles, triples fermes des I-XI cotes droites, compliquées d'un hemo-pneumothorax. Volet costal. Fractures fermées des II-III, V - VII cotes gauches. Contusion pulmonaire bilatérale. RTS (Revised Trauma Score) - 5.676 points. NISS (New Injury Severty Score) - 50 points. Dans le troisième jour (J3) il est transfère en Réanimation Médicale au Centre National Scientifique Pratique de Médecine d'Urgence (CNSPMA), dans un état grave MPM III (Mortality Probability Model) 55.0%, ou on a établi le diagnostic de

SDRA a l'entre (début rapide progressive de l'IR aigue; la radio thoracique de face montrait des images alvéolaires non systématisées, bilatérales, diffuses; l'hypoxie sévère et résistante a l'oxygénothérapie, évaluée par le rapport PaO₂/FiO₂ ≤ 200 mmHg; sans signes cliniques d'une défaillance cardiaque gauche). Les volets de la prise en charge: 1. Protocole individuel de ventilation (FiO₂, recrutement alvéolaire, PEEP (pression positive tele-expiratoire) optimal, ventilation non agressive - concept du «baby lung syndrome»; 2. Application précoce de la trachéostomie (J3); 3. Normovolemie; 4. Analgésie adéquate (opioïdes, AINS); 5. Antibiothérapie probabiliste dans la période précoce et définitive selon l'antibiogramme; 6. Support nutritionnel; 7. Traitement avec les corticoïdes pendant le J7-J14 de réanimation; 8. Lavage broncho alvéolaire les premiers 14 jours; 9. Correction de l'anémie et de la coagulation; 10. Réhabilitation: Evolution: J3 - application de la trachéostomie; J13 - PSV, Glasgow 15; J19 - respiration spontané; J21 - enlèvement de la trachéostomie; J25 - sortie de réanimation; J38 - sortie de l'hôpital. Conclusions: Une prise en charge complexe des patients avec traumatisme thoracique permet d'améliorer le pronostic et de diminuer la période de traitement en réanimation.

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Comparison of Spinal and Spinal Epidural Anaesthesia in Orthopaedic Surgery

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Objectives. To compare the grades of intraoperative haemorrhage and postoperative comfort in patients undergoing orthopaedic surgery with spinal versus combined spinal-epidural anaesthesia.

Materials and Methods. Were examined 33 patients undergoing orthopaedic surgery: hip prosthesis or femoral osteosynthesis. Patients were divided into 2 groups according to performed anaesthesia: Group 1: Spinal epidural anaesthesia with catheter for postoperative analgesia -20 patients Group 2: Spinal anaesthesia -13 patients Age, ASA score, type of surgery, duration of surgery were comparable between two groups. Intraoperative haemorrhage was accessed by measuring the amount of blood in suction gauze. Post operative comfort, which includes the pain, was defined as maximal-5 points, and insupportable – 1 point.

Results and Discussions. The age between studied groups was comparable: 59.71 ± 11.9 years in group I and $55.66 \pm$

12.8 years in group 2. The ASA score as well did not present big differences between two studied groups: 2.47 ± 0.49 points in group 1 and 2.58 ± 0.49 points in group 2. In group of patients with combined spinal epidural anaesthesia the intraoperative haemorrhage was less compared to spinal group (414 ± 74.4 ml versus $433 \pm$ ml) and level of postoperative comfort was better 4.6 ± 0.22 in spinal epidural than in patients with spinal anaesthesia 4.33 ± 0.47 . In spinal epidural group the haemorrhage was less compared to spinal group (414 ml vs. 433 ml) $p < 0,05$ and level of comfort is better in spinal epidural than spinal $p < 0,01$.

Conclusions. Spinal epidural anaesthesia seems to confer better post operative comfort for orthopaedic patients, and at the same time amount of haemorrhage is less compared to isolate spinal anaesthesia.

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Non-operative Solving of the Blunt Hepatic Trauma

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Background. Surgical science documents that 50-70% of hepatic injuries don't haemorrhage at the moment of laparotomy, which underlines the appearance of non-operative treatment (NOT) option of hepatic injuries, on hemodynamic stable patients.

Objectives. The implementation of NOT on blunt hepatic injuries in emergency surgery, and illumination of success and failure factors, argumentation and standardization of the necessity of imagistic examinations (CT, USG), clinical and paraclinical monitoring.

Materials and Methods. Seventeen NOT cases of blunt liver traumas of multiple traumatized patients were analyzed, during the period 2003-2007. These were associated with thoracic – 13(76%), craniocerebral – 9(53%), locomotors -5(29%) traumas, 1st and 2nd degree shock at admission – 10(52%). In five cases liver injuries were associated with spleen (2), kidneys (3), and pancreas (1) injuries. Severity of hepatic injuries (AAST): gr.I-4(23,5%), gr.II-8(47%), gr.III-4(23,5%), gr.IV-1(6%), ISS: $20,44 \pm 2,95$, RTS: $7,63 \pm 0,129$. USG done on 15(88,2%), in 6 cases reveals heterogeneous intrahepatic and subcapsular areas, in 5 – hemoperitoneum $\approx 60-600$ ml; laparoscopy – 7(43,75%) practiced initially for dignifying the specificity of USG results, determines subcapsular hematoma (2), superficial injuries (4), hemoperitoneum $\approx 60-400$ ml; CT – 9(53%) determines intraparenchymal (6) and subcapsular

(3) haematomas: 2nd degree injuries-3, 3rd- 4, 4th-2 (Mirvis). Biochemical examinations indicated high values for hepatic aminopherases in 12(70%) patients with 2nd-4th degree injuries. At admission: ASAT $2,72 \pm 0,84$ mmol/l, ALAT – $2,64 \pm 0,55$ mmol/l. In 6(50%) cases, high aminopherases values maintain after 5 days of intensive treatment (ASAT $-1,86 \pm 0,77$ mmol/l, ALAT – $1,77 \pm 0,52$ mmol/l), all patients having 3rd-4th degree hepatic injuries (Mirvis). Monitoring: clinical – 17(100%), USG – 15(88,2%), CT – 3(17,6%). In 2 cases CT is repeated at 14 and 17 days, during the same admission on stabilization and clinical amelioration bases. NOT conversion – 0. Complications – 3(18,75%) pneumonia, posttraumatic pyelonephritis, erosive duodenitis. Duration of admission $13,5 \pm 2,12$ days. General lethality – 1 (5,88%), caused by severe CCT. CT monitoring at 3 months (2), 6 and 12 months (1); scintigraphy - at 12 months (1).

Conclusions. Non-operative tactic is an argued modern method, advantageous and opportune. Non-operative option is indicated in 1st-3rd degree hepatic injuries (AAST) and 4th degree (CT), in the absence of surgical indication, but those severe, hemodynamic stable, cannot be excluded. The value of cytolysis enzymes is in direct correlation with the degree of hepatic injuries. The usage of CT is the standard method in non-operative approach for blunt hepatic injuries.

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Objective Evaluation of Injury Severity in Multiple Traumas of Musculoskeletal System

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Background. Injuries of the musculoskeletal system have been significantly increased in the last decades and consist 15-20% (F. Gornea, 2007). Different approaches to evaluation principles of injury severity, indications and terms of the surgical treatment determine different management tactics of the patients with multiple musculoskeletal traumas.

Objectives. To show the sense of the objective evaluation of injury severity of the patients with multiple musculoskeletal trauma at the medical assistance.

Materials and Methods. The treatment analysis of 108 patients with multiple trauma of musculoskeletal system has been performed. Pelvic ring injuries with upper extremities fractures were in 40 cases, with lower extremities fractures - in 68 cases. 108 patients had 137 extremity fractures: 119 closed fractures and 18 open. The cause of trauma was: car accident (65%), fall from height (25%) and severe compression (10%). Complex examination was performed according to the algorithm of management of the patients with multiple musculoskeletal traumas. A comparative evaluation of injury severity was performed using the systems: anatomical - AIS, ISS, PTS, NISS, path physiological - TS, RTS, mixed - TRISS, ASCOT. ISS was the most practical and convenient. Evaluation of injury severity at the admission of the patients according to the integral point system ISS was 18-50 points. The patients were divided in 3 groups depending of the terms of surgical intervention. In the 1st group (n=8) osteosynthesis of

the fractures was done at the admission to the hospital, ISS was less than 20. In the 2nd group the patients (n=74) were operated at the 5-7 day, ISS was 21-35. In the 3rd group operations were performed at the 14-18 day due to the associated closed thorax injuries, ISS was 36-50.

Results. Comparative analysis of evaluation of injury severity using AIS, ISS, PTS, NISS, TS, RTS, TRISS has showed that ISS is the most convenient in practical work and sufficiently high objective. That is why the choice of terms and methods of primary stabilization of the pelvis and extremities fractures depended on the patients' general condition, injury severity according to ISS, presence of associated injuries, type, kind and localization of the injury. Severity of the patients' general state decreased when the operative treatment was performed early (1 and 2 groups). If surgical intervention had been delayed, patients' condition was grave until the 14th day.

Conclusions. It is necessary to note, that multiple injuries of musculoskeletal system is a severe trauma that needs a complex examination, an objective evaluation of injury severity and on this basis - determination of the optimal treatment tactics. The received treatment results show that correct and objective evaluation of injury severity, early and active management tactics of the patients with multiple musculoskeletal traumas provide positive outcomes and favourable prognosis.

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Endoscopic Treatment of Spontaneous Intracerebral Haemorrhage Associated or Not with Massive Ventricular Haemorrhage

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Background. Spontaneous intraventricular haemorrhage (IVH) is a severe complication of hemorrhagic stroke, presenting in ~10% of the cases of intracerebral haemorrhage. When Glasgow coma score (GCS) is low at admission and the volume of blood in the cavities is >20 ml, prognosis is very poor. The presence of blood in the ventricular system is a negative predictor of outcome in cerebral haemorrhage. Therefore, aggressive treatment, particularly in the presence of large quantities of blood, must be considered. Conventional treatment of IVH consists of ventricular drainage with or without fibrinolysis or surgical evacuation and open surgical evacuation.

Materials and Methods. We report our first 8 patients operated for intraventricular and isolated intracerebral haematomas. Patients presented at admission a GCS ranged from 8 and 11 and haematoma volume in average of ~70 ml. Five of them were operated endoscopically for isolated intracerebral haematoma, in other 3 patients we performed endoscopic evacuation of the intraventricular haematoma. In all 3 patients a ventricular drainage was left for an average of 4 days. All the patients treated by endoscopic evacuation of isolated cerebral haematoma had a good

recovery and regained home after 10 days of hospitalisation. The motor deficit regressed in medium by 3 points, and Glasgow outcome scale at 3 months was severe disability for 3 patients and moderate for the other 2 of them. In the 3 cases of endoscopic intraventricular haematoma evacuation the outcome was complicated by meningoencephalitis following external ventricular drainage. All 3 patients died despite complex antibiotic therapy.

Conclusions. Endoscopic evacuation of the intracerebral haematoma is associated with good results and can be proposed for patients with GCS above 8 and for a volume ranging 30-80 ml. Infection of the ventricular drainage determines ventriculitis and meningoencephalitis in patients with intracerebral haematoma complicated with intraventricular haematoma. External drainage after endoscopic evacuation of the intraventricular haematoma is associated with high rate of mortality. Ultimately, the decrease of postoperative mortality rate represents the primary advantage of endoscopy over the open technique. The role of neuroendoscopy should be verified by a prospective randomised study.

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Casuistry – Medical Fact

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Objectives. To present the surgical case that usually occurs seldom, therefore presents an increased interest for surgeons.

Materials and Methods. Study of the clinical file and instrumental investigations.

A 24 years old man was hospitalized on April 10th 2005 in the Municipal Clinic “St. Trinity”, accusing moderate pain in the umbilical region. The hospitalization diagnosis was – foreign body in the GIT. The patient swallowed a few metallic objects 9 months before. Two days after the ingestion appeared the first symptoms – abdominal pain and nausea, but he didn't address to the doctor. In 2001 was operated for the same cause, HIV positive, pulmonary TBC, drug addicted. After a superior median laparotomy and revision of the peritoneal cavity the

stomach was extended and fixed to the posterior wall of the urinary bladder. From the stomach have been extracted 5 metallic objects, corroded and covered with mucus. The objects have been covered with tape before ingestion. The patient left the hospital on his decision. Three months after operation the patient is hospitalized with the diagnosis – Acute Abdomen. Ulcer disease. Perforated ulcer. During the surgical intervention: median laparotomy, abdominal cavity revision, small bowel paresis, massive adherence process, intestinal occlusion by “great” momentum strangulation. The patient left the hospital on 5th day without announcing any of the medical stuff.

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Role of Echoguided Biopsy in Prostate Affections Diagnosis

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The prostate biopsy has been used by a long time, but until 1980 this technique was performed transperineally or transrectal under the finger control. In 1989 Hodge proposed the method used nowadays, with rectal plunger endowed with a machine of biopsy. Prostate is a special gland situated on the urethra trajectory, histological is composed of the fibro muscularly zone and glandular zone situated centrally. The echographical method is one of the most performing in evaluating prostate pathologies. The examination is done transvesical, transurethral and transrectal, and due to the topographic anatomy of the prostate. The transrectal method offers the most exact information about prostate, proportion and the structure of the gland. The echoguided biopsy is a modern technique introduced recently in the urological practice in our country. For the study have been used 32 biopsy of the prostate, effectuated in the urology department of the Clinical Republican Hospital. The results demonstrated

efficiency much bigger than the classic method without echographical guide. The percent of the adverse reactions and nonconformity of the level PSA was a net inferior than the old method. From total probes 20% were diagnosed as false negative and it is recommend the at 6 probes from different sectors and some cancers may be accompanied by a PSA level in the normal limits, and contrary at a percent of the patient with increased PSA the result can be negative. Early diagnosis of the disease will allow the use of a new therapeutically method. The level of the tumour is determined with the Gleason scale which represents the sum of all the points which indicate the cell differentiation in two most demonstrating biopsies. The eco-guided biopsy demonstrated its efficiency and I think that it must be used in all the cases that present difficulties in diagnosis.

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Liver Resection for Benign Disease and Liver Tumours

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Objectives. To assess the feasibility, efficacy and safety of hepatic resection, using principles of Couinaud anatomy.

Materials and Methods. Twenty-four (male/female ratio 9/15, age 48±5.3) resection were carried out, over the period 2000-2006 in surgery department of Clinical Republican Hospital (Republic of Moldova). Nine benign (second group), 11 malign (first group), 4 inflammatory tumours were resected. Median number [1(1-3)], maximum diameter 8 cm. Ten major, 12 minor and 2 atypical resection were performed. The presences of hepatic lesion were confirmed by the following methods of investigation: ultrasonography, computed tomography, angiography CT scan, magnetic resonance imaging, also intraoperative ultrasound were performed.

Results. No mortality occurred. Median intraoperative blood loss was 850±205 ml (first group) and 462±240ml (second group). The median hospital stay was 15 days and the median number of days on which there were a need for opioids

was 1 (range 1-6). The mean operative time was 360±100 min (first group) and 247±78 min (second group). Post operator complications developed at 4 patients (pneumonia 4 cases, postoperative bleeding 2 cases, transitory ascites 2 cases, liver failure 2 cases).

Conclusions. Liver resection (according to Couinaud principles) can be performed safely and seems to offer short-term benefits to the patients. It can be performed with minimal blood loss and postoperative complications, which are determined by the type of hepatectomy. Well done preoperative management allow electing a proper surgery tactics and to determine operative volume. Intraoperative ultrasound and manual exploration may adjust operative techniques. Patients with associated pulmonary and cardiovascular diseases need an intensive preoperative management in order to reduce the complications rate.

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Gigantic Axillary Artery Pseudoaneurysm after Scapulo-Humeral Dislocation

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Axillary artery pseudoaneurysms are the result of an opened or closed trauma. One of the possible etiologies is scapulo-humeral dislocation, which causes the contusion of the axillary artery. This contusion could evolve as an intraparietal hematoma or the tethering of the infrascapular artery, followed by the formation of a pseudoaneurysm as a consequence of the weakening of the artery wall structure.

We present the case of a 68 year-old man, who was admitted in the Vascular Surgery Clinic from Iasi with a pulsating tumoral mass in the right axillary and pectoral regions, showing integumentary signs of inflammation, neurological signs of brachial plexus compression, lymphoedema by axillary nodes block. Three months ago, the

patient suffered a scapulo-humeral dislocation, treated with reduction and immobilized with a thoraco-brachial apparatus, which is removed after a month. The patient complains of functional impotence and remarks the growth in volume of the right axilla. The paraclinic (echography, arteriography) findings lead to the positive diagnosis of axillary artery pseudoaneurysm. The treatment of choice is surgical, with the resection of the aneurysm, termino-terminal anastomosis and venous graft angioplasty. The evolution is favourable and the patient resumes his daily activities in optimal conditions.

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Laser Surgery Methods in Ocular Diseases Treatment

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Background. At present, the primary use of laser in the treatment of chorioretinal diseases is to cause photocoagulation. In biologic systems, laser energy in the visible and low infrared range is absorbed by pigment. If tissue is heated above 100 degrees Celsius, tissue shrinkage occur secondary to dehydration, and carbonization may occur. As the temperature continues to rise, tissue vaporization results. In ophthalmology are used different types of lasers that are classified by different criteria like the active medium: Solid laser; Liquefied laser; Semiconductor laser; Gas laser; by way of emission of photons: Continuously emission laser; Pulse laser; by way of interaction of different wavelengths with the oculars mediums: Photocoagulation; Photo disruption; Photo ablation; Photo vaporization; Photodynamic effect. The direct or indirect action of laser treatment is directed on the amelioration of eye function by mediums function amelioration, ocular drainage amelioration and IOP reduction. The laser treatment is used to patients with ocular pathologies, as a specific method of treatment: Laser iridotomy used in condition of clinically relevant papillary block. Laser trabeculoplasty used in exfoliative and pigmentary glaucoma when intraocular pressure (IOP) is not satisfactorily controlled with medications. Laser iridoplasty is used to widen the angle approach by shrinking the peripheral iris, in plateau iris

syndrome, in angle closure in nanophthalmus. In complicated cataract there were used laserodiscission methods of anterior capsule of partial opacity crystalline with the purpose of inducing the complete hydration and opacity of the crystalline with their ulterior evacuation. In case of secondary cataract witch are formatting in postoperatorium period was performed the laser dissection of ocular opacity structures.

Objectives. To determine the efficacy of laser use in the treatment of ocular pathologies.

Materials and Methods. 12 patients with complicated cataract were investigated and treated, 39 with secondary cataract and 20 patients with diabetic retinopathy (RD) and macular oedema in conditions of Ophthalmologic Clinic nr.2 (Hospital “Holly Trinity”) and the Rail Way Central Hospital.

Results. In all cases the effect of laser treatment was positive with the amelioration of visual functions and there were no postsurgery complications.

Conclusions. This study confirms the efficacy of lasers in the treatment of ocular diseases. The recent progress of laser technique and possibilities of its improvement in future is one of the principal reasons of its implementation in modern medicine.

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Modalities of Horizontal Venous Reflux Interruption during Subfascial Endoscopic Perforator Surgery

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Background. Untreated chronic venous insufficiency (CVI) of lower limbs results in progressive skin changes that may ultimately lead to ulceration. The diminution of clinical manifestations of CVI can be achieved by removing all superficial venous reflux and interruption of perforator veins (PVs). Increasing interest in PVs interruption to treat severe CVI has been stimulated by the development of subfascial endoscopic perforator surgery (SEPS). The goal of the SEPS procedure is to stop the pathologic wrong way flow of blood, or so-called horizontal venous reflux, from the deep venous system, through incompetent PVs of the calf, into the superficial venous system.

Objectives. To assess the modalities of perforator reflux interruption during SEPS.

Materials and Methods. Duplex scan examination of deep, perforator and superficial veins was routinely performed in patients with clinical signs of severe CVI (active or healed ulcer and trophic changes of soft tissues), hospitalized during a twenty-five months period. All incompetent PVs were marked on the skin and then abolished by open ligation and/or SEPS. During SEPS, incompetent PVs were interrupted under direct vision using endoscopic videocamera and standard laparoscopic instrumentation through two small ports (5 mm and/or 10 mm) placed remotely from the active ulcer or area of diseased skin. Horizontal venous reflux was interrupted using simple clipping, clipping and division, electrocoagulation or associations of these. The modality of PVs interruption was chosen, considering the size and localization of these.

Results. SEPS was performed on 61 legs in 47 patients, with mean age of 58 (range: 21-77) years. The number of PVs abolished endoscopically range from 1 till 5 per limb. By simple clipping without division was interrupted 55,3% of the incompetent PVs; electrocoagulation was done in 21,2%; clipping and division between two clips - 12,9%; division - 6%; clipping with electrocoagulation of superficial end - 4,6%. In the 5 (8,2%) limbs showing haemorrhage in the working space, bleeding was controlled by postoperative bandage. Just in two of these limbs we have a difficulties in adequately approach more distal (two per total) PVs because of haemorrhage in the subfascial space. Concomitant operations to decrease superficial reflux were performed in 51 limbs. Interruption of horizontal venous reflux was confirmed at the controlled duplex examination or by postoperative decreasing of symptoms and signs of CVI and ulcer healing.

Conclusions. All modalities of PVs interruption are able to use. Simple clipping is sufficient to treat horizontal venous reflux. Although circumferential dissection of PVs is not essential, it facilitates a more secure placement of the clips and may provide increased exposure for more distal PVs. Even if intraoperative bleeding occurs in the subfascial space, haemostasis is easily achieved by external compression and simple postoperative bandage, so operation requires no drainage.

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Surgical Management of Sternal Infected Wounds

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This paper presents our surgical team experience in the treatment of the infected sternal wounds and the new techniques in the management represented by the VAC. The infection of the sternal wound is a major problem in the cardiac surgery units. The definitive healing is obtained with the price of a long hospitalisation. The clinical study was performed from 1996 until June 2006. Our department's experience in treating dehiscences and infected sternal wounds is important, and in this direction the Vacuum Assisted Closure is the latest used

technique. The VAC is useful as a first line treatment in the management of superficial dehiscences and infected wounds. The severe infected and complicated cases are initially treated with classic techniques (omental or muscular flap). In these particular situations (partial failure of the flaps) the VAC could be used as an adjuvant method to the flap technique in order to obtain a definitive stable healing process.

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Surgical Treatment Aspects of Spinal Canal Stenosis in Thoracic and Lumbar Localization

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Objectives. Clinical assessment of evolution and analysis of surgical treatment at patients with degenerative lumbar spinal stenosis, posttraumatic and scoliosis deformities of spinal canal localized at thoracic and lumbar level.

Materials and Methods. Was performed patients medical files analysis with spinal canal stenosis, surgical interventions in Orthopedic-Vertebrology clinic of Traumatologic and Orthopedic Clinic Hospital and Traumatologic Department of Clinic Military Centre Hospital. Surgical treatment was performed, during 2002-2007, to 24 patients with stenosis origin: posttraumatic – 11; degenerative – 9; scoliosis – 2; tumour – 2. Females were – 15 and males – 9. Patient's age constituted from 17 to 62 years, with average age of 39 years old. In patients with posttraumatic stenosis was performed medullar decompression lamina - or hemilaminectomy, medullar canal reconstruction, removing of Urban element, fractured joint apophysis, removing of vicious bone callus. In indicated cases was made posterior stabilization with metal construction type Cotrel-Dubusset. In degenerative stenosis was made reconstructive unilateral hemilamine facetectomy, in those with scoliosis origin was made reconstructive laminectomy to some thoracic segments. In neoplastic cases was done tumorectomy (one case anterior vertebral bodyectomy with interbody fusion ceramic

implant) and posterior stabilization of transpedicular construction.

Results. In most of cases (21 patients-87.5%) was obtained total neurological regress or partial with orthopaedic status improvement, vertebral algic syndrome improvement, patients with stenosis of scoliosis origin, with clinical manifestation of deep inferior paraparesis and modification of pelvis organs functions (first case was obtained total neurological regress with pelvis organs functions recovery, second case was obtained partial neurological regress with pelvis organs functions improvement).

Conclusions. Spinal canal stenosis is a severe pathology of spinal column with vascular-nervous lesions. Vascular-nervous lesions severity, in spinal canal stenosis, is conditioned, in a large measure, to localization, etiopathogenetic factors and their time action. 1. Clinical evolution and vascular-nervous lesions severity in spinal canal stenosis are direct correlated with etiologic factor, localization and time of medullar compression. 2. Surgical interventions decompression, reconstruction and stabilization in spinal canal stenosis, performed in optional terms with strict-motivated indications, in each case, improves present considerable neurological modifications, being one of decisive factors of social-medical rehabilitation.

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Etiology of Dupuytren's Contracture Syndrome according to the Cases Registered in Republic of Moldova

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Background. Dupuytren's contracture is caused by a proliferative fibroplasias of the sub cutaneous palmar tissue, occurring in the form of nodules and cords and resulting in secondary flexion contractures of finger joints (both the proximal interphalangeal and the metacarpophalangeal joints may be affected). Although the mechanism of appearance of contracture is not understood yet, we can find the correlation between the factors of risk and the cases of disease.

Objectives. To find more commonly factors in our country which cause the appearance of such type of contracture.

Materials and Methods. In this work are used statistical methods, which helped to find percentage of each factor predominantly for Republic of Moldova. The data is obtained on the base of case history of each patient. There were examined about 200 of patients from two Chisinau's hospitals: National Centre of Emergency Medicine and Clinical Hospital of Trauma and Orthopaedics. By the anamnesis we considered such epidemiological factors as: sex, profession, age, place of residence, heredity (autosomal dominant pattern), nationality, pernicious habits as smoking and alcohol consumption, the presence of diseases like epilepsy, diabetes mellitus, trauma in anamnesis and autoimmune reactions.

Results. There have been estimated that in our Republic men are in several times more affected then women (3-9:1), whose type of contracture is more mild, but they don't undergo surgery for the disease easier as men. Also contracture occurs more frequent in the age period from 50-60 and more. The involvement is often bilateral (45%) and is more severe in persons with epilepsy (42%) and those suffering from alcoholism. In cases with heredity lesions occur earlier and more frequently. About 5% of patients with Dupuytren's contracture have diabetes. A 3-fold increased risk for Dupuytren's contracture is seen in individuals who smoke. Also the type of work places a big part, as the major part of patients with Dupuytren's disease have an occupation exposed to vibration.

Conclusions. There haven't been found an essential correlation between the disease and trauma exposure in anamnesis. Generally, obtained date about the role of different factors gives us right to confirm that Dupuytren's disease has the same origin as in other countries, yet some local epidemiological particularities present.

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Implementation of Endoscopic Inspection Method in Surgical Treatment of Late Subdural Haematomas

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Objectives. Treatment of late posttraumatic subdural haematomas using endoscopic methods.

Materials and Methods. In National Institute of Neurology and Neurosurgery from Republic of Moldova in the second semester of 2007, the endoscopic method was implemented in evacuation of late posttraumatic subdural haematomas using the neuroendoscope Kark Storz.

Results. A consequent choice of clinic and paraclinic methods of examination, the management and the volume of surgical treatment, influence the reducing of lethality in treatment of late posttraumatic supratentorial subdural haematomas from 28,6% (Orlov. Iu., 1962-1972), to 1.1% (Potapov A., 1998). There are known the following methods of surgical treatment of late posttraumatic subdural haematomas: - haematoma evacuation by means of traditional bone flaw (resection or osteoplastic trepanation); - twist-drill craniostomy associated with closed drainage; - simple suction thru micro trephination associated with external drainage or shunt; - endoscopic evacuation. In management of

posttraumatic subdural cerebral haematomas, is very difficult to establish proper indications, especially in treatment of relapse cases, giant worsen with dislocate syndrome, bilateral cases. In 11 cases the evacuation of late haematoma was done in patients of 35-73 age old, with haematoma size from 80 ml to 130 ml, no more than 3 weeks from the moment of impact. The pre- and postsurgical diagnose was confirm by CT and MRI investigations. In control group were included the cases in period between 2003- 2007 years, treated in classical neurosurgical manner (not endoscopic).

Conclusions. The treatment of late posttraumatic subdural haematomas using endoscopic methods raise the visualization of haematoma cavity by penetrating visceral capsule for restoring the liquorodynamics. The endoscopic coagulation is a better procedure than the classic methods, because the new haemorrhages are avoided. The mini invasive neurosurgical intervention offers a better medico-financial balance.

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Hemangioblastoma: a Clinical, Microscopical and Radiological Study of 43 Patients

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Background. Hemangioblastoma is a term to describe tumours arising from the endothelial cells of the central nervous system. They are histological benign tumour.

Objectives. To assess of patients with hemangioblastoma who refer to our hospitals.

Materials and Methods: this is a case-series study that included all patients from 1992 to 2006 those refer to our hospitals.

Results. There were a total of 43 patient (24 males, 19 females), the average age was 42, among them 11% were younger than 20. The commonest location was cerebellar lobes with 83%. The average time of symptoms before diagnosis was 13.5 months. The commonest symptoms were vomiting, cerebellar symptoms and vertigo. No multiple lesions and retinal lesions were reported in patients' documents. The average haemoglobin was 15.6mg/dl. The cystic tumours and tumours with foamy cytoplasm were commonest. No significant difference of blood group was seen in comparison with normal population but significant difference of Rhesus factor was seen in which 100% was Rhesus factor positive.

In microscopic evaluation the commonest pattern was cellular with 62%. The average age of patients with tumours with foamy cytoplasm was 45.68 in comparison to 29.8 in acidophilic cytoplasm. In about 25% cases there were oedema around the lesion. All of patients underwent surgery with mortality rate of 9%.

Conclusions. There was no significant difference between average age of our study with the other's but number of patient's younger than 20 were more than respected. There was no von Hippel Lindau disease reported maybe because of incomplete evaluation of patients or insufficient attention in Iran. Long duration of symptoms before diagnosis is maybe due to delay in patients' reference. The average haemoglobin in our study was significantly lower than other studies with no difference with normal population. For immunohistochemistry studies and long term follow up it needs more studies. No diagnosis of von Hippel Lindau, no report of multiple and retinal lesions and oedema around the lesion in 25% of patients are considerable topics.

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Reliability of Detection and Biopsy of Sentinel Lymph Node in Patients with Breast Cancer

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Background. The axillary node status is one of the most powerful prognostic factors for recurrence and survival of patients with primary breast cancer.

Objectives. To assess the role of sentinel lymph node (SLN) biopsy following double labelling by ^{99m}Tc technetium human serum albumin colloids (^{99m}Tc -HAS) and vital blue dye, and to evaluate sensitivity of labelling and detection of SLNs in patients with T_1 and T_2 stage breast cancer without clinical evidence of nodal involvement.

Materials and Methods. Fifty women (mean age 54 ± 12) were analyzed after mastectomy or lumpectomy and complete axillary dissection. A total of 0.3 ml ($50\text{--}74\text{ MBq}$) of ^{99m}Tc -HAS had been injected intradermally subareolarly. Dynamic lymphoscintigraphy was performed followed by early and late static scintigraphy. Blue dye (1%, 3 ml) was injected around the breast mass, 10 minutes before surgery. During

the surgery, a gamma probe was used to localize SLN. The success rate of SLN identification was 100%. All SLNs were examined by frozen section, hematoxylin eosin staining and immunohistochemically. Overall 75 SLNs and 714 nonSLNs are removed and analysed.

Results. Seventeen out of 50 patients (34%) had metastatic disease in the axilla. Of the 17 patients with metastases, the range of involved nodes was from 1 to 2. The SLN(s) was positive in all patients with metastatic disease (sensitivity: 100%), and thus there were no skip metastases (false negatives: 0%). The SLN was the only site of metastases in 10 of 17 patients (58%).

Conclusions. Sentinel node biopsy is a highly accurate method for staging and treatment of breast cancer patients.

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Extraanatomic By-Passes in Contemporaneous Vascular Surgery

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Background. At this moment the vascular surgery has more procedures of extraanatomic by-passes: axillo-femoral, thoraco-femoral, femoro-femoral, obturatorius et al.

Objectives. To elucidate problems related to the indications for surgical intervention, the technique of by-pass application and selection of the patients, which are not in present established exactly.

Materials and Methods. The study is composed from 27 patients with extraanatomic by-passes operated in period from 1987 to 2007. Indication for extraanatomic bypass was critical ischemia of the inferior limbs associated with advanced cardio-vascular and pulmonary pathology in 14 patients. In those patients was done cross-over femoro-femoral or ilio-femoral by-passes in 12 cases and in one case an axillo-femoral by-pass. Another sample consists from patients with suppurative processes of the extremities: in 6 cases was done ilio-femoral or femoro-femoral cross-over by-passes and axillo-femoral one. In group of patients who suffered vascular trauma associated with important soft tissue destructions and infestation, extraanatomic by-passes were applied in next way: 3 cross-overs in case of ilio-femoral ax injury (in one patient – ilio-femoral by-pass – from the inferior third of the external iliac artery to the superficial femoral artery of the injured limb and in 2 patients – femoro-femoral by-passes – from opposite common femoral artery to the common femoral artery of the traumatized extremity); 2 femoro-popliteal by-passes in case of superficial femoral artery injury, conduits being formed in subcutaneous adipose tissue (one on the antero-medial part of the hip, another on the postero-lateral part) and 2 brachio-

brachial suprafascial by-passes (one on the posterior, another on the postero-medial part of the arm).

Results. In both axillo-femoral by-passes occurs thrombosis less than in 3 months. In case of ilio- and femoro-femoral by-pass grafts thrombosis was revealed in early postoperative period at 4 patients. From this, 3 patients had necessity in emergent amputation. In other 2 patients graft thrombosis occurs in about 6 months and in other 2 in about one year. In patients with vascular trauma who had a permeable peripheral bed, in all period of observation (1-8 years) results was satisfy. by-passes permeable.

Conclusions. First, the obtained results, in major way, will depend on the patency of the peripheral vascular bed, thing demonstrated by our patients with critical ischemia preceded by the atherosclerosis, with associated cardio-vascular and pulmonary pathology, and with suppurative processes. These patients having a possible chronic affectation of the peripheral bed results were not so good. Second, these devious by-passes are an alternative in case of patients with suppurative processes, advanced cardio-vascular and pulmonary pathology and in cases of vascular trauma associated with important destruction and infestation of adjacent tissues. Extraanatomic by-passes are undoubtedly less injurious to these patients than is aorto-femoral bypass, but these procedures are associated with less satisfactory results as measured both by hemodynamic improvement and by patency. They produce adequate enhancement of perfusion to allow limb salvage in selected patients, but we don't indicate them as treatment for intermittent claudication.

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Volvulus of the Sigmoid Flexure: Operative Treatment in a 72-Year-Old Patient

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Background. Sigmoid volvulus is a serious condition in which a redundant sigmoid loop rotates around its narrow, elongated mesentery, producing ischemia and necrosis of the sigmoid colon, followed by rapid distension of the closed loop. The sigmoid colon is the most frequently reported site of intestinal tract volvulation. It is responsible for 8% of all intestinal obstructions and is the third leading cause of large bowel obstruction.

Case report. We present the case of a 72-year-old man with no surgical history, with a medical history of hypertension and angina of effort presented in emergency and admitted in The 3rd Surgical Clinic, “St. Spiridon” Hospital, Iasi for lack of faeces and gas passing and abdominal volume enlargement. He denied recent abdominal pain, nausea or vomiting.

Physical examination revealed exaggerated abdominal distension and tympanitic percussion tones. Rectal examination revealed normal mucosa and an empty rectal ampoule. Abdominal radiography demonstrated a dilated sigmoid colon projecting into the upper quadrants of the abdomen, devoided of haustral markings. Results of blood investigations and coagulation profile were within normal limits. Based on the clinical examination and paraclinic investigations the final diagnosis was sigmoid volvulus with megacolon.

Laparotomy confirmed the diagnosis and viability of the bowel. He underwent an emergency Hartmann's procedure. He was treated successfully with the sigmoid colectomy and a defunctioning colostomy. The patient's course following

surgery was uneventful and he was discharged 7 days after surgery. He was referred for a second stage surgery to restore bowel continuity 3 months after resection, but an intra-abdominal abscess was found and subsequent surgery was required.

Discussions. Sigmoid volvulus is a surgical abdominal emergency. Accurate diagnosis and early treatment are essential for optimal management and a good outcome. Delay in diagnosis and treatment may lead to sigmoid ischemia, infarction, peritonitis, and septicemia, resulting in high mortality rate. The symptoms and radiological findings are sufficient for a confident diagnosis to be made before the onset of a major obstructive episode. Various surgical procedures have been adopted for the management of

nongangrenous sigmoid volvulus in thick-walled megacolon. However, the most advisable surgical treatment of the disease is resection of the redundant sigmoid colon.

Conclusions. Most authors agree that the definitive treatment of sigmoid volvulus is sigmoidectomy with colostomy as other reduction procedures carry a high risk of recurrence of the volvulus and postoperative complications. The procedure of choice is Hartmann's operation. Awareness of the disease and its occurrence will aid its recognition and reduce mortality from intestinal obstruction.

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Variations of Intraocular Pressure in Students of "N. Testemitanu" SMPHU

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Objectives. To investigate the variations of intraocular pressure during the day and the week. To establish which factors influence on it and there correlations.

Materials and Methods. Intraocular pressure (IOP) was measured in 78 students two times during the day. The first measurement was made between 6.30-7.30 a.m., the second 18.30-19.30. Also this measurement was made during a week: monday, wednesday, friday, sunday. IOP was measurement using a transpalpebral tonometer. Abberations (defocus (sphere), cylinder (astigmatism)) were measured with an autorefractometer. Each subject had completed an inquest with factors which can influence the value of IOP: age; the year of the study; the objects of study; the duration of sleep; preparing homework, watching TV, working at the computer; the arterial pressure; the quantity of liquid consumed during a day; smoking; if they work or practice some kind of sports.

Results. Statistically differences in IOP between morning and night were found, also between the beginning and the end of the week. The variations of IOP were in statistically correlation with: the year of the study; duration of the sleep,

time of preparing homework, watching TV, and working at the computer; the values of arterial pressure; the quantity of liquid consumed during a day; defocus (sphere). There wasn't found a statistically correlation between: IOP and the smoking; working and practicing sports; cylinder (astigmatism).

Conclusions. Statistically differences in IOP between morning and night were found, also between the beginning and the end of the week. The value of IOP obtained in the morning decrease with 1,5-2 mmHg comparative with the night and the value of IOP obtained at the beginning of the week decrease with 1,5-2,3 mmHg comparative with the end. It was determined a direct correlation between values of IOP and the year of the study; duration of the sleep, doing homework; the values of arterial pressure; the quantity of liquid consumed during a day; defocus (sphere). An indirect correlation was obtained between values of IOP and duration of watching TV and the duration of working at the computer.

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Treatment of Hip Osteonecrosis

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Objectives. To evaluate the surgical methods of treatment of hip osteonecrosis (ON).

Materials and Methods. This study is based on the analysis of treatment of 29 patients (25 men and 4 women), with age from 22 till 58 years (average 37 years) with hip ON. In 16 patients (32 hips) the disease was diagnosed bilateral. In this study was used the clinico-radiological classification proposed by Ficat and Arlet in 1980. According to this classification there were 3 patients with stage I, 9 with stage II, 12 with stage III and 20 patients with stage IV.

For the ON and evaluation of the stage was also used the physical examination, as well as common laboratory investigations (the x-ray in 2 views, bone scanning, CT and MRI). At the hospitalization the functionality of the affected hips according to the Harris hip score was in the average 32 points. The methods of treatment used in this group of patients were those traditional, being determined by the stage of the disease, the magnitude of the affection and the desires of the patient.

Results. In this period of time, took benefit of the conservative treatment 7 patients with ON in 11 hips (2 hips

stage II and 9 hips stage IV according to Ficat and Arlet classification). Core decompression with transtrochanterocervico-cephalic drilling was performed in 7 patients. Bone grafting with cortical allograft preserved in sol. 0,5% formaline taken from tibial crest for the prevention of the femoral head collapse was performed in 3 patients. The intertrochanteric osteotomy of flexion and medialization was performed in 3 cases where the necrotic angle was less than 180°. Total hip replacement was performed in 20 hips (12 patients) in advanced stages of the disease (stage III – 4 hips and stage IV – 16 hips). In 3 cases were implanted resurfacing prosthesis. In the postoperative period was registered only 1 complication, manifested by occurring of a intretrochanteric

fracture after core decompression. The global Harris hip score after the surgical treatment at a mean follow-up of 20 months was in average 86 points.

Conclusions. Hip ON is a disease that commonly affects and frequently invalidates frequently young patients, with have special functional demands and a long life expectancy. Early diagnosis and treatment and the majority of cases ensures a good result. It is desired to salvage the femoral head by revascularisation and prevention of the collapse. Using cortical allografts in the prophylaxis of the impression fractures of the femoral head. postpones the total hip arthroplasty in patients with hip ON.

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Coronary By-Pass in Surgical Treatment of Ischemic Heart Disease

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Background. Ischemic heart disease (IHD) is a pathology characterized by the absence of proper oxygenation for the myocardial function, determined by the disturbance between coronary bloodstream and their necessity produced through changes in the coronary circulation which can be of organic etiology, functional or mixed. Instrumental diagnosis is performed in complex using ECG, EchoCG, myocardial scintigraphy, ventriculography and selective coronarography. Modern treatment methods of IHD include: therapeutical and interventional management (coronary and laser angioplasty, stent implant, atherectomy), surgical management includes aortocornary by-pass (AoC by-pass) and minimal invasive surgery. Indication for AoC by-pass will be: left coronary branch stenosis (>50%), two and more or diffuse coronary lesions (>75%), severe proximal stenosis of the descending anterior artery, left ventricular (LV) dysfunction and postinfarction complications (free myocardial wall rupture, LV aneurysm). Grafts used in myocardial revascularization (MR) are: arteries (left internal mammary (LIMA), radialis, gastroepiploica dextra, epigastrica inferior), veins (saphena magna and parva, cephalic), also synthetic prothesis and biological grafts.

Objectives. Establishment of: 1) proper preoperative investigation criteria, 2) certain indication for surgical MR, 3) priority between veins and autoarterial MR, 4) surgical treatment methods in mechanic postinfarction complications.

Materials and Methods. Where analyzed 152 patients with IHD, treated in the Heart Surgery Center of Republic of Moldova. In the study were included 140 males and 12 females with an age between 37-75 years.

Results. Clinical pictures shows: unstable angina (28), myocardial infarction (52), and hypertensive disease (82). atherosclerosis of different vessels (26). Associated pathologies were: valves affection (32), aneurysm (19), brachiocephalic affection (3), myxoma (1), diabetes (19), ulcer (40), and renal insufficiency (4). Electrocardiography (ECG) revealed in 14 cases arterial flutter or fibrillation, LV hypertrophy (115), postinfarction scars (108). Angiocoronarography revealed that two and more arteries are affected, mostly left type vascularization (75-99%, 100%) and signs of a- or hypo-kinesis. Surgical technique: patients were mostly operated in condition of extracorporeal circulation (ECC-134) or off-pump (18). MR – autoarterial (LIMA-115, radial-32), T-graft (9), vein (295), sequential (46). endarterectomy (3). LV aneurysmoplasty (23): Dor technique-8. resection-6, thrombectomy-4, aneurysmoraphy-2. Postsurgical complication: cardiac insufficiency (34,2%), infarction (4,7%), atrial fibrillation (21,3%), AV block (8,5%), hemorrhage (3,4%), pericaditis (14,5%), mediastinitis (8,2%), pleurisy (38,9 %), pneumonia (37,1%) and ictus ischemic (2,1%). After surgery lethality were for 7 patients (4,6%).

Conclusions. The golden standard in diagnosis of IHD is coronarography. Indications for AoC by-pass are established by the manifestation of IHD, number and stenosis type of coronary arteries. Priority for AoC by-pass will be autoarterial MR because of less surgical complications. The mechanic postinfarction complication (LV aneurysm) and associated valve pathology needs surgical correction simultaneously with myocardial revascularization.

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Laparoscopic Funduplications in the Treatment of Hiatal Hernias

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Background. Hiatal hernia (HH) presents an interest due to its typical symptoms that decreases considerably the quality of life, atypical symptoms that complicates the correct diagnosis and because it wasn't decided yet, about a proper surgical anti-reflux procedure. The surgical literature has numerous examples of the rediscoveries in the laparoscopic era, such as the necessity of closing the esophageal hiatus with antireflux operations, taking down the short gastrics when doing a Nissen fundoplication or Toupet, carrying out an anchored repair or Collis procedure on patients with short esophagus, and removing the sac when repairing paraesophageal hernias. The need to relearn these concepts has in some cases complicated the process of ongoing evaluation.

Materials and Methods. This study is based on a descriptive statistical analysis of 28 patients (12 men and 16 women) admitted in the Surgical Endoscopy and Mini-invasive Surgery Clinic, between January 2005 – September 2007. From each patient, information including disease duration, history of disease, and symptoms (dysphagia, chest pain, etc.) were collected. From the studied group 25 were diagnosed with axial hiatal hernia and 3 with paraesophageal hernia that had a mean anamnesis of 4.36 ± 0.77 , where the shortest had 1 month and the longest 20 years. The mean age of the patients was 49 ± 1.98 years where the extremities were 25 and 64 years.

Results. The analysis reported a 100% (28) incidence of retrosternal and epigastric pain, 54% (15) complained with

pyrosis and 68% (19) with eructations in the studied patient group. According to the Savary-Miller classification 8 patients (28.6%) had no reflux esophagitis (RE), 13-(46.4%) 1st degree RE, 4 (14.3%) 2nd degree RE, 2 (7.1%) 3rd degree RE and 1 (3.6%) with 4th degree RE. pH-metry was done in 14 patients where the mean pH was 3.2 ± 0.85 . All patients were treated surgically via laparoscopic procedures. Nissen fundoplication was applied in 13 cases (46%), Toupet fundoplication in 7 (25%) cases and Dor fundoplication in 8 (29%). The mean hospitalization period was 5 ± 0.68 days.

Conclusions. Laparoscopic approach represents the access of choice in the treatment of hiatal hernias. Nissen fundoplication is considered to be „the golden standard” in the treatment of HH and is indicated in patients with hypofunctional lower esophageal sphincter, normal peristalsis, gastric emptying and fundus dimensions that allow plication. Toupet procedure is indicated in patients with deficient esophageal peristalsis. Dor procedure is indicated in obese patients, atonic esophagus and anatomic peculiarities that impede a 360 degree plication. Minimally invasive procedures have well noticed advantages over the classic approach in the treatment of HH. Patients should be informed of the real benefit of fundoplication on heartburn and the potentially invaliding postoperative functional symptoms. Weighing the risks and benefits of these surgical options in the treatment of HH, patients can make their informed choice.

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Preoperative Management of the Patients with Advanced Ovarian Cancer

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Background. Ovarian cancer (OC) morbidity rate in Republic of Moldova is 190 at 100000 women. Recently has grown the rate of patients with III and IV stage of OC. Modern approach includes chemotherapeutic and surgical treatment. Chemotherapeutic medication has general cytotoxic effect which has to be taken in consideration in preoperative preparation of the patients.

Materials and Methods. We review a group of 41 patients with morphological confirmed OC of III-IV stage, the patient's age were between 37 and 72 years. Preoperatively were investigated: electrocardiogram, systolic, diastolic and mean arterial pressure (AP), heart rate (HR), peripheral oxygen saturation (SpO2), ejection fraction (EF), pulmonary artery pressure (PAP), urinary output, spirometry and chest X-ray (CXR).

Results. We received following parameters: mild decrease of EF - $50.7 \pm 2.1\%$, increase of: PAP - 27 ± 7 mm Hg, AP - 140 ± 30 mmHg, HR - 92 ± 7 , SpO2 - $95 \pm 4\%$.

At CXR we found pleurisy in 16 cases, at spirometry – reduction of vital capacity up to 39% – 41%. Preoperative therapy lasted between 5 and 7 days. In infusional therapy were used colloid solutions: amino acids, dextrans, cryoplasma transfusion, and crystalloid solution of glucose 5% and NaCl 0.9% on the average 35 – 40 ml/kg in 24 hours, under monitoring of AP, HR, central venous pressure and diuresis. We used also corticosteroids, anti-oxidants, cardiotrope medication and diuretics in moderate doses. Finally we have managed to improve central and peripheric hemodynamic parameters in 61 %, which reduced intraoperational and postoperative complications with 21%.

Conclusions. Adequate preoperative preparation permits not only to enlarge the indications to the surgical treatment of the patient with advanced OC, but also to reduce the rate of intra and postoperative complications.

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Mother and Child's Care Section

Families with Premature Newborns in NICU: Analysis of Needs

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Background. Each period of family life leads to a lot of changes, but the most changeable period in the family is waiting for a baby. Premature newborn delivery always occurs unexpectedly and families have no possibilities to prepare for this crisis. Perceived family needs help to realize what happens and face reality. The role of nurses is crucial in this process in order to provide appropriate support professionals needs to understand problems, needs and difficulties of families.

Objectives. To analyze needs of families, who have premature newborns in Neonatal Intensive Care Unit (NICU). Study question: How do parents of premature newborns and nurses rank family needs in NICU?

Materials and Methods. A convenience sample of 218 respondents from NICU, including 181 parents and 37 nurses completed "NICU Family Needs Inventory" modified by K. Word from Critical Care Family Needs Inventory. Lithuanian version was translated and adopted to Lithuanian language by A. Vaskelyte. "NICU Family Needs Inventory" is a scale, consisted of 56 need statements designed to measure the importance of family needs. Five dimensions of the scale, including support, information, comfort, assurance, and proximity were revealed by factor analysis. Data were analyzed using descriptive statistics. The response differences between parents and nurses were analyzed by the Independent-Samples T Test.

Results. Five dimensions of the scale were identified and ranked by parents and nurses. Both groups of respondents ranked dimensions in near the similar way: support (M(SD)=47,8(9,27) – parents; M(SD)=51,8(6,62) – nurses); assurance (M(SD)=41,2(2,79) – parents; M(SD)=37,4(3,49)

– nurses); proximity (M(SD)=25,6(2,30) – parents: M(SD)=23,0(2,58) – nurses); information (M(SD)=36,0(2,94) – parents; M(SD)=33,3(4,32) – nurses), ($p<0,05$) and comfort (M(SD)=15,35(4,19) – parents; M(SD)=16,72(3,12) – nurses). Thirty-three out of 56 need statements were identified as very important and important. Parents reported 30 needs and nurses reported 27 needs, which from more than 90 percent of respondents ranked as very important and important. 23 very important and important family needs were identified the same by parents and by nurses. According to the data analysis more than 10 percent of parents ranked as not important 13 needs and more than 10 percent of nurses – 8 needs. Data revealed 3 family needs ranked as not important by parents, but any nurse ranked these needs for families as not important. Individual parents, who completed inventory, ranked 33 needs as non-applicable at least one time, while nurses ranked 12 needs as non-applicable for parents. 11 family needs the same by parents and by nurses were identified and all respondents ranked them as non-applicable at least one time.

Conclusions. Both groups, parents and nurses, ranked Support related needs as the most important and Comfort needs - as at least important. The parents reported 30 needs and nurses reported 27 needs, which were ranked as very important and important by more than 90 percent of respondents. More than 10 percent of parents ranked as not important 13 needs and more than 10 percent of nurses – 8 needs. Parents, who completed inventory, ranked 33 needs as non-applicable at least one time, and nurses ranked 12 needs as non applicable for parents.

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Extreme Prematurity as Risk Factor for Neurological Outcomes

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Objectives. To elucidate the risk of neurological sequelae in preterm newborn with extremely low birth weight (ELBW - <1000g) and very low birth weight (VLBW - 1000-1499g).

Materials and Methods. This prospective cohort study was performed in 72 newborns: the 1st group of study - 42 ELBW and VLBW preterm newborns; the 2nd group (control) - 30 term newborns. The children were reevaluated in follow-up by classic neurological examination; neurodevelopment evaluation test and risk evaluation of neurodevelopmental outcomes test: BINS (Bayley Infants Neurodevelopmental Screener) and BSID-III (Bayley Scales of Infant and Toddler Development - third edition) at 6; 12; 18 months - corrected age for preterm newborn and postconceptional age for term newborn; instrumental investigation - ophthalmoscopy and transfontanelar echography. It was used evaluation by Development, Motor and Cognitive Coefficients: <70 - abnormal; 70 - 85 - area that necessitate an intensive follow-up; > 85 - normal. It was used for analysis: rates (P), standard errors (ESp); results veritability was determined by signification test (t-student). Relative risk (RR), chi-square (χ^2); confidential interval with 95% of veritability (CI 95%) was calculated with „Table of contingency 2 x 2”.

Results. 72 newborn included in study: group I - 42 (58,3 ± 7,6%; p<0,001) ELBW and VLBW preterm newborns, and 30 (41,7 ± 9,0%; p<0,001) term newborns in II control group. Group I

was divided in 2 subgroups: I subgroup - 5 (11,9 ± 14,5%; p>0,05) ELBW preterm newborns and II subgroup - 37 (88,1 ± 5,3%; p<0,001) VLBW preterm newborns. It was established that risk of apparition of neurological sequelae in preterm newborns is 3,9 higher than in term newborn (RR 3,9 95% CI: 1,97 - 4,91). And risk of apparition of neurological sequelae in ELBW preterm newborns is 3,4 higher than in VLBW preterm newborns (RR 3,4 95% CI: 0,34 - 7,14). It was elucidated that the risk for an abnormal Development Coefficient in preterm newborn is 4,56 higher than in term newborn (RR 4,56 95% CI: 2,69 - 6,42).

Conclusions. (1) It was established that risk of apparition of neurological sequelae in preterm newborns is 3,9 higher than in term newborn (RR 3,9 95% CI: 1,97 - 4,91), and for ELBW preterm newborns is 3,4 higher than for VLBW preterm newborns (RR 3,4 95% CI: 0,34 - 7,14). (2) It was elucidated that the risk for an abnormal Development Coefficient in preterm newborn is 4,56 higher than in term newborn (RR 4,56 95% CI: 2,69 - 6,42). (3) Risk of apparition of abnormal Motor Coefficient in ELBW preterm newborns is 1,7 higher than in VLBW preterm newborns (RR 1,7 95% CI: 0,2 - 3,6), and abnormal Cognitive Coefficient is 2,1 more frequent in ELBW preterm newborn than in VLBW preterm newborns (RR 2,1 95% CI: 0,17 - 3,99).

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Clinical Diagnosis in the Case of 4q Trisomy

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Background. Trisomy 4q syndrome is a rare condition, first described in 1971, that often presents with multiple debilitating congenital anomalies. Trisomy 4q has been reported to occur due to multiple genetic mechanisms including inheritance of unbalanced translocations, insertions or duplications and by de novo unbalanced translocations. Although there are some common features that have been identified, in cases of 4q trisomy, different variations may appear due to small deletion of another chromosome or to the duplication breakpoint of the chromosome 4. Some of the common features identified at 4q trisomy patients are: Small head, small jaw, prominent forehead sloping forehead, pointy chin, malformed ears, low-set ears, widely spaced eyes, short philter, down turned corners of mouth, short neck, rocker-bottom feet, syndactylia, scoliosis, epileptic seizures, tetralogy of Fallot, venous return anomalies, renal hypoplasia, urethro-vesical reflux, undescended testes, growth retardation, motor retardation, mental retardation.

Objectives. To present the case of a 4q trisomy and to make an analysis of the main dysfunctions that can be found in the case of a 4q trisomy patients.

Materials and Methods. In order to diagnose the patient, cytogenetic methods were used.

Results. Cytogenetic methods have revealed that the patient presents a partially 4q trisomy due to the existence of a derived chromosome 7. The laboratory results confirm the suspicion of the clinical evaluation. The patient presents: cyanosis, reduced muscle tone, prominent forehead, hypertelorism, antimongoloid slant of the eyes, syndactylia, thumb deformities, leg deformities, abnormal dermatoglyphics, low set ears, posterior angulated ears, short neck, broad nasal bridge and other. Conclusion: While there are some dysmorphic features in common, it has not been possible so far to delineate a clinically recognizable trisomy 4q syndrome. This aspect is partial due to the variant of the chromosomal segments involved in the different cases.

Conclusions. As further cases are reported and studied it might become possible to delineate specific abnormalities that might be used for diagnosing the cases of 4q trisomy.

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Cervical Pregnancy. New Options of Treatment

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Background. Cervical pregnancy (CP) represents the implantation of the sac in the mucous membrane of the cervix, below the inner opening, this being a very rare type of the ectopic pregnancy. The frequency of this pathology is reported 1 in 16000 cases of birth. These types of pregnancies are interrupted at different terms. A frequent important symptom is the abnormal cervix bleeding, often abundant and backsliding, which determines a certain degree of anemia. The hemorrhage is explained by the lack of muscular fibers of the endocervical canal as well by the fact that chorion penetrates the mucous membrane, this way a veritable accrete insertion is accomplished. The treatment of SC requires haemostasis by the ablation of the product of conception, which often terminates with hysterectomy. The curettage is frequently the first therapeutic step taken when CP is confounded with incomplete or imminent spontaneous abortion. The bleeding represents a major risk subsequently to curettage.

Objectives. To improve the treatment of cervical pregnancy in order to reduce the gynecological morbidity.

Materials and Methods. In this study 3 cases with CP were included: women with the age of $24,3 \pm 1,5$ years. The diagnosis was confirmed by speculum examination, ultrasound

examination, and by testing the level of the chorionic gonadotropin in serum. Methotrexate (used as cytostatic in trophoblastic proliferative processes) was administered locally in the dose of 50 mg, combined with systemic administration intramuscularly. As a criteria of the treatment's efficiency is the decrease of β sub-unit of the chorionic gonadotropin in serum reaching 10 mUI/ml.

Results. As a result the partial resorbption of the fetal product occurred. The dimensions of the fetal product reduced significantly. In the operating theatre, the product of conception was evacuated using sponge forceps. The bleeding continued from the cervix after evacuation and cervical haemostatic sutures were applied. The vital signs remained stabile. The late outcome points out that the menstrual function has reestablished after 1-2 months. In one case the patient became pregnant in one year.

Conclusions. Conservative treatment with methotrexate represents a new therapeutical option in the management of CP with a decreasing risk of bleeding and maintaining uterus as the main reproductive organ.

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Neonatal Persistent Pulmonary Hypertension Secondary to Meconium Aspiration Syndrome. Case Report

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Background. Meconium aspiration syndrome occurs when a newborn inhales meconium into its lungs before, during or after delivery. At pulmonary level meconium causes partial obstruction resulting in hyperdistention of the alveoli, commonly named the ball-valve effect or complete obstruction resulting atelectasis. Persistent pulmonary hypertension of newborns (PPHN) is a syndrome characterized by marked pulmonary hypertension that causes refractory hypoxemia and right-to-left extrapulmonary shunting of blood.

Objectives. Our study evaluates the efficiency of Sildenafil in the treatment of meconium aspiration syndrome along with conventional therapy: conventional assisted ventilation and systemic vasoconstrictors, in the situation where high frequency ventilation (HFV) extracorporeal membrane oxygenation (ECMO), nitric oxide (NO) are not available.

Case report. The newborn suffered from severe pulmonary hypertension secondary to meconium aspiration syndrome. The clinical diagnosis of pulmonary hypertension was considered because hypoxemia was refractory to oxygen therapy ($PaO_2 < 55$ despite FiO_2 of 1.0) and was associated with a preductal to postductal oxygen gradient greater than 20 mm Hg, cyanosis, associated with tachypnea and respiratory distress (Silvermann

Score 8). The treatment strategy included: intermittent positive pressure ventilation (IPPV) via Dräger 8000 plus - "mild hyperventilation" maintaining $PaCO_2$: 35–50 mmHg, avoiding significant acidosis, (maintaining the pH >7.30), Dopamine to maintain arterial blood pressure, phosphodiesterase-5 inhibitors (Sildenafil) as a selective pulmonary vasodilator (1mg to 2 mg/kg/dose) given by orogastric tube.

Results. Before treatment, the newborn had an oxygenation index (OI) greater than 40, the alveolar-arterial gradient (A-a) grater than 400 mmHg, and FiO_2 requirement >80%. After the first 6 doses of 1mg/kg of Sildenafil, OI did not improve, but after the doses were doubled (2.0 mg/kg) the oxygen index fell below 20 and remained unchanged for the following 48 hours (8 doses), therefore it was possible to decrease the ventilatory parameters. The newborn was extubated after 10 days of conventional ventilation.

Conclusions. Treatment with Sildenafil and conventional mechanical ventilation of meconium aspiration pneumonia associated with severe pulmonary hypertension has demonstrated its clinical efficacy in the situation where HFV, ECMO and NO are not available.

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Surfactant Therapy for Premature Newborns

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Background. Surfactant is a lipoprotein complex synthesized in the Golgi apparatus of the endoplasmic reticulum of the type II alveolar cell starting in the 20th week of gestation and reaching adequate levels in weeks 34-36. Inadequate surfactant production causes air sacs to collapse on expiration and greatly increases the energy required for breathing. Surfactant deficiency causes respiratory distress syndrome (RDS) in the premature newborn.

Materials and Methods. Our investigation included 60 premature newborns with a gestational age under 30 weeks and weight under 1500 grams, from the total 2444 babies born at the Neonatology I Clinic in Targu Mures from 1st of January 2007 until 31st of December 2007. Surfactant was administered to newborns with radiological and clinical signs of RDS (respiratory distress syndrome).

Results. From the total of 60 (2,45% from all the babies born) premature newborns 27 (45% of them) were treated with surfactant (Curosurf). All children included in the study required assisted ventilation, 23 of them (38.34%) via CPAP

(continuous positive airway pressure) and 37 (61.66%) via IPPV (intermittent positive pressure ventilation) and CPAP. The following complications occurred: decease 7 (11.66%) treated with surfactant, 5 (8.33%) not treated with surfactant; intraventricular hemorrhage 6 (10%) treated with surfactant, 11 (18.33%) not treated with surfactant; ulcero-necrotic enterocolitis 1 (1.67%) treated with surfactant, 2 (3.33%) not treated with surfactant; pneumothorax: none (0%) treated with surfactant, 1 (1.67%) not treated with surfactant; bronchopulmonary dysplasia 3 (5%) treated with surfactant, 3 (5%) not treated with surfactant; patent ductus arteriosus (PDA) 10 (16.66%) treated with surfactant, 11 (18.33%) not treated with surfactant.

Conclusions. Surfactant therapy increases the survival rate of premature newborns gestational age under 30 and weighing less than 1500 grams at birth. Surfactant therapy also lowers the rate of complications associated to prematurity.

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Fractures – Dislocations of the Forearm in Children

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Background. The ulnar shaft fracture associated with radial head dislocation exactly as the radial shaft fractures associated with ulnar head dislocation are rare lesions in children and insufficiently studied. A comparative statistical analysis of these lesions frequency in children creates the schematic shape of such traumatic structures at this age. This article contains the statistical data and incidence of fractures-dislocations of the forearm bones in children, the typical character of lesions and the comparison with other author data.

Materials and Methods. 9564 children were treated in orthopedics department, between 2003-2007 years, patients with trauma were 2531 (26,4%), tubular bones fractures were registered in 1927 (76,1%) cases, upper limb fractures in 1519 (60% from all traumas and 78,8%, from tubular bones fractures), forearm bones fractures were registered in 575 (22,7%) cases, medial condyle fractures with a present or reduced elbow dislocation in 112 (4,4%).

Results. In the last 5 years there were registered 39 cases of fractures-dislocations of the forearm (1,54% from total number of locomotion apparatus trauma, 2,2% of all fractures number, 2,56% of upper limb fractures number and 6,68% of forearm bones fractures). According to Bairov G.A data from 2000 the

Monteggia type, most frequent forearm fracture – dislocation had the incidence of 0,68% from all limbs fractures and 1,9%-2,3% of forearm fractures (the last result in our study is 4,17%). From those 39 patients, 24 were treated surgically and 15 were treated conservatively. Good and satisfactory results were registered in all 39 cases.

Conclusions. There is a remarkable increasing of incidences of rare fractures in children becoming a common notion for adults. Some data doubled in comparison with statistical data of other authors from the year 2000. There is the need to mention that despite of gravity of forearm fractures- dislocations a perfect treatment procedure is able to solve the problem through an complete anatomic repositions of the injured fragments, cause according to main orthopedics rules – the function recovering of the injured parts is possible through anatomical structures reinstating of the forearm and physiologic correlations between joint components only. For complications prevent the reduction has to be made cautious and carefully to the joint tissue and forearm bones that leads to a functional rehabilitation and insure the normal growing of the injured limb.

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Unexpected Outcome in a 16-year-old Patient with Renal Calculus

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We report the case of a 16-year-old female patient admitted in the IVth Clinic of ‘Sf. Maria’ Pediatric Hospital Iasi with staturponderal deficiency and primary amenorrhea who was referred to the Genetics Department for further investigations. She had no significant personal or hereditary history.

Physical investigation revealed short stature, long face with low insertion of the ears, bilateral cubitus valgus, mammary hypoplasia with widely spaced nipples, low hairline insertion, absence of secondary sex characters and primary amenorrhea, clinical aspect suggestive for the diagnosis of Turner syndrome. The clinical-genetic protocol of investigations was started. Results of blood and urine investigations were within normal limits, with normal kidney function and negative urine culture. Paraclinical investigations carried out, including genetic testing revealed: karyotyping, presence of sexual chromatin, absence of ovarian function, fist radiography showed normal hand bone age corresponding to the chronological age with open growth cartilages, normal echocardiogram and normal arterial tension, limited intellect. Abdominal and pelvic ultrasound showed stage IV right hydronephrosis with a 25 mm calculus in the renal pelvis and stage I-II left hydronephrosis. These findings required further imaging investigations. Repeated elevated creatinine blood levels were remarked so only urinational cystography and renal scintigraphy were performed. The anatomopathologic exam proved hydronephrosis with tuberculosis induced

chronic pyelonephritis. Chest X-ray was performed and specific investigations which showed negative tuberculin intradermoreaction, negative bK urine culture, negative HIV/AIDS antibodies.

Based on clinical examination and paraclinical investigations the final diagnosis was secondary renal tuberculosis for which the patient underwent a mandatory right nephrectomy (stage IV right hydronephrosis, obstructive lithiasis in pelvic kidney) and Turner syndrome.

The treatment initiated included tuberculostatic treatment (Isoniazid, Rifampicin, Pyrazinamide and Ethambutol), growth hormone and estrogenic treatment. The patient's course following treatment and surgery was favorable. She has a good prognosis in the absence of comorbidities because of the good response at the first line tuberculostatic antibiotics, early recognition of the disease and because it is not associated with HIV/AIDS antibodies. The particularities of this case are represented by the insidious evolution before the diagnosis and its incidental discovery at the ultrasound exam performed for the hydronephrosis associated with lithiasis without clinical or urinary signs and also the fact that the final diagnosis of hydronephrosis with secondary renal tuberculosis was proved by the anatomopathologic exam, in the absence of the primary site or proofs of the existence of the primary site of tuberculosis.

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Caesarian Section in Intrauterine Growth Restriction (IUGR)

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Objectives. To establish the optimal finishing modalities of IUGR gestation.

Materials and Methods. The study has been undertaken on 310 pregnant women, diagnosed with IUGR, between 37-41 gestational weeks. The perinatal indicators, the Apgar estimation and infants evaluation were done.

Results. The use of ultrasonography have determined fetal growth anomalies in 268 cases (86,50±2,10%) – EFW, AC, FL, BPD under the 10th percentile. The IUGR was confirmed in 67,54±3,49% cases, at the repeated USG exam (after 14 days). In 47,45±2,84% cases uterine and umbilical Doppler was pathological. In 9 cases the Arbeille index less than 1, have been determined. These children have been born by caesarean section. In 164 cases (52,9±2,84%) children were born per vias naturalis (PVN) and in 146 (47,1±2,84%) – by caesarian section (CS).

The programmed CS was performed in 90 cases (29,0±2,58%) and the urgently one - in 56 cases (18,1±2,20%). The mortality rate in PVN births was 8 cases (25,8%). The serious asphyxia at birth was frequent appreciated in PVN births (5,5±1,79%) vs. CS births (1,4±0,96%). The perinatal hypoxia was determined in equal incidence for PVN (44,8±3,89%) and CS births (40,8±4,05%). The high rate of perinatal morbidity, especially for PVN births (86,67%) vs. CS (46,67%) was established.

Conclusions. It was appreciated that CS is the most preferable and more protective option for labor of fetuses with IUGR, the indications being decided on dependence of fetal degree of suffering and in correlation with other obstetrical conditions.

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Cryptogenetic Cirrhosis in Children. Case Report

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Background. Liver cirrhosis represent an important pathology in children because of its severe complications and its dark prognosis on long-term. Etiology of cirrhosis is multifactorial: viral hepatitis (B, C), metabolic disorders (alpha 1 antitripsine deficit, Wilson disease), autoimmune hepatitis and so on. Sometimes the cause that led to cirrhogenic evolution of the liver disease is not fully elucidated, in this case cirrhosis being criptogenetic.

Materials and Methods. Authors present the case of a 12 years old girl, diagnosed with liver cirrhosis of unknown etiology. Clinical aspects combined with laboratory findings

reveal signs of portal hypertension, latent hepatic encephalopathy and hematological hypersplenism. Splenectomy is performed, with improvement of clinical and biological parameters. Comorbidities are also discussed, in relation to the basic disease.

Conclusions. Cryptogenetic cirrhosis has an unpredictable evolution, due to impossibility of precise determination of its cause. Clinical and biological parameters' improvement is a possible therapeutic approach in this case.

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Particularities of Etiology and Evolution of Acute Peritonitis in Children

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Background. Acute peritonitis in children represents one of the most actual problems in pediatric surgery. In spite of modern methods of diagnosis and treatment, the ratio of complications and lethality in acute peritonitis in children remains at high level and consists 12-19 %.

Objectives. To determine the most important particularities of etiology, treatment and complications in acute peritonitis in children.

Materials and Methods. A total number of 270 patients operated and treated for acute peritonitis in the "Natalia Gheorghiu" National Center of Pediatric Surgery during the period January 2004-December 2007. The source of peritonitis, phase of disease, surgical interventions, the bacterial etiology, postoperative treatment and evolution were analyzed.

Results. The most common source of acute peritonitis in children represents the complicated acute appendicitis (80%). Another cause was trauma, intestinal perforations, ovarian cysts and others. A total number of 150 girls and 120 boys were treated. A high incidence of complications

and development of abdominal sepsis was determined in patients in advanced phases of the disease. Patients in the age under 5 represented 26 %.The postoperative management included antibacterial treatment, intensive care, wound care, ultrasonografical monitoring, biochemical analyses, appreciating of indices of endotoxicosis and prophylaxis of complications. The postoperative complications were determined in 8,9 %of the cases, including mechanical occlusion, evisceration, intestinal fistula and others. In 3 cases was performed relaparotomy. Microbiological analyses determined the bacteriological etiology of peritonitis.

Conclusions. Evaluation and ratio of complications depend of the duration of the disease, the reversibility of poliorganic failure, and skeptical shock. The newborns and infants have the higher level of complications, because the late diagnosis and evolution of the sepsis. This fact determinates the necessity of searches for optimizations of the management of acute peritonitis in children.

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Mother-to-Child Transmission of HIV and Prophylactic Treatment

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Objectives. To research Mother-to-Child transmission of HIV and infection prophylaxis by using the antiretroviral treatment, focusing on clinical, epidemiological, immunological and virologic peculiarities of HIV infection in pregnant women; on clinical, immunological and virologic aspects in children born by HIV-positive mothers; and on the effectiveness of the antiretroviral (ARV) treatment to prevent Mother-to-Child transmission of HIV.

Materials and Methods. The research sample comprised 163 pregnant women with HIV infection (stage A and stage B) and the newborns of these women; out of 163 pregnant women 130 benefited from prophylactic ARV treatment, while 33 pregnant women and their newborns did not. The pregnant women have been examined through clinical, epidemiological, immunological and virologic methods.

Results. Any clinical manifestations of HIV infection has not been identified in 98 HIV-positive pregnant women, Stage A. In 32 pregnant women, HIV-positive, Stage B, the clinical symptoms has been manifested through: hyperaemia of oral cavity mucous, which has a dry and glossy aspect, with whitish and creamy sediments, which could be easily detached, appearance of an unpleasant taste; frequent urinations, burning pain in the process of urination; vaginal whitish and creamy eliminations, genital pruritus, sensation of pain in the form of burn at the level of genitals. Before the commencement of the ARV therapy with prophylactic purpose, the viral load

recorded in 118 pregnant women (90.76%) reached levels higher than 1000 copies/ml. 130 pregnant women got ARV treatment with prophylactic purpose starting with the 28-th week of pregnancy. As a result of the ARV treatment the viral load in 124 pregnant women (95.38%) decreased and reached a non-detectable level (<400 copies/ml). Of pregnant women who were not treated with ARV, 32 (97%) pregnant women were infected sexually and only 1 (3%) pregnant woman due to injectable drugs. The clinical sign in pregnant women, who did not benefited from prophylactic ARV treatment, has been observed in 10 (30.3%) pregnant women through: hyperaemia of oral cavity mucous, which had a dry and glossy aspect, with whitish and creamy sediments, which could be easily detached, appearance of an unpleasant taste; frequent urinations, burning pain in the process of urination; vaginal whitish and creamy eliminations, genital pruritus, sensation of pain in the form of burn at the level of genitals. 16 (48.49%) pregnant women had the number of CD4 more than 500 cells/mm³. The viral load was higher than 50 000 copies/ml also in 16 pregnant women.

Conclusions. 33 pregnant women with HIV infection who did not benefit from ARV prophylactic treatment transmitted the infection to their infants in 14 (42.4%) cases. Thanks to the provision of ARV therapy perinatal transmission of HIV infection has been recorded in two (1.54%) newborns.

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Review on Female Infertility

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Infertility is the incapability of fertilization or reproduction after a year of regular sexual activity. Sterility in a woman is a complete inability to conceive. Infertility affects a high percent of married couples. It is caused by an abnormality at any level of the reproductive tract, and need a complete history, physical and laboratory examination. Treatment center to the etiology. It has psychological and ethical implication-so it needs counselling. In genetic disorders is important to give genetic counselling. The genetic sex is decided in the moment of fertilization. Both sexes are initially morphologically

indistinguishable. For sex specific development are required specific hormones. Mullerian inhibiting substance and testosterone secreted by the differentiating embryonic testes, result in the loss of female (Mullerian) or promotion of male (Wolffian) reproductive duct development. Female genital tract derives from the Mullerian ducts, a number of genes being involved in its regulation, like Lim1, Hox-A10, Hox-A11, Hox-A13, Wnt-4, Wnt-7. The signalling molecule Wnt-4 is crucial for female sexual development.

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Public Health Section

Chronic Disease Management by Preventive Care through Lifestyle Changes (Review)

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Background. When one considers that the current expenditures for healthcare are ever increasing alongside the increased prevalence of chronic conditions, it seems logical that a greater focus needs to be made of effective means of managing chronic conditions and preventive medicine to stave off chronic conditions from ever developing. In our society an ever increasing rates of longevity has become the norm, and the instances of chronic conditions has been rising considerably to parallel this. Therefore, the proper and efficient management of chronic conditions with early intervention and lifestyle modification are vital to reducing the burden places on the healthcare system, and further to that end the prevention of chronic conditions at the outset by simple lifestyle modifications should be readily promoted.

Objectives. To demonstrate effective methods of chronic disease management and prevention, as supported by current literature.

Materials and Methods. This study will proceed to answer the problem statement as well as the research questions posed within the proposal. The means of study will be a literature cross-comparison of current and past work completed in the areas of behavioral models of intervention, disease management and obesity. There is no limitation with regard to the date in which the study was conducted. Indeed there are studies that date back thirty years that are still the basis of current understanding of behavior. Still however, more modern and current studies will be base to most weight as they are dealing with society as we find it now. The sources to be used will be that of peer-reviewed studies sourced through various academic journals and online research databases. The review of studies conducted in different communities in different corners of the world will prove invaluable in finding common similarities in their findings along with common differences. In addition, there will be studies used in the review that will have been conducted in health systems different than that found in the United States (Vaughn & Waldrop, 2007). It is important that these studies be included because they are relevant in that all systems have to deal with the efficient allocation of limited resources in our respective healthcare systems. In the case of conflicting findings with similar studies, the context in which these studies were conducted will be examined in order to determine which result is has the greater support. In the case of models of behavioral modifications, the various studies collected and their findings will be used to compare the different models to come to a conclusion on the most viable models. In addition, the comparison of studies dealing with the financial side of disease management will also be compared to theoretical studies to examine the financial viability of a third

theoretical model of intervention. Finally, with regard to the literature review for this study, it will form a considerable part of the discussion argument supporting the findings of our study. In this review bias of one study findings over another will be avoided, and the presentation of conflicting studies will be presented and examined in a systematic fashion. Ultimately the literature review will serve as a backing to the conclusions made regarding the questions posed within the study.

Results. This study sought to determine whether or not preventive measures were possible in modern day society to prevent the onset of chronic conditions. In addition this study examined if models of disease management and prevention could be used to reduce costs to the healthcare system that chronic diseases impose. The findings of this study suggest that in fact it is entirely possible and in deed practical to reduce the prevalence of chronic diseases in society by relatively simple lifestyle changes. In addition the effective management of already manifest chronic conditions can too prove beneficial in reducing costs to the healthcare system. The result of our study undertaken to answer the underlying question has resulted in the formation of the three pillars that all intervention programs should be concerned. The three pillars are; early behavioral modification, preventive screening and education, and continual and consistent management of chronic conditions. The first pillar answers the first of the stated sub-questions, that being "what overall behavioral initiatives can be implemented to promote lifestyle changes among the population with emphasis on the youth population". There in fact are numerous ways in which lifestyle changes can be achieved, from nutritional programs and exercise initiatives, all of which can be instilled during childhood. The early intervention within the population is a strong barrier to later conditions such as obesity, hypertension, and diabetes. Unhealthy children will grow up to become unhealthy adults, which will then be diagnosed with a chronic condition is the classical etiology. Therefore early intervention results in early savings to the healthcare infrastructure in the long term. The pillar of preventive screening is vital in that it will diagnose not only those on the edge of developing a chronic condition, but also those in the early stages of a chronic condition. The early diagnosis of any disease has been linked to more positive outcomes lower costs. The observation of a person on the cusp of developing chronic conditions, but who can revert to a healthier state by proper education and lifestyle changes, is vastly cost-effective in taking the patient out of lifetime treatment for a chronic condition. The pillar is the effective management of a chronic condition. Once a chronic condition is properly diagnosed there is no turning back on the continued tie of the individual to lifetime care. Yet there can be still savings realized and quality of life ensured if proper management of the chronic condition is undertaken. In fact, if

ideal management is done on a chronically ill patient, few if any serious and costly complications associated with their condition would manifest themselves through the rest of the person's life. This study also found that the current existing philosophical basis for our current system is unacceptable. We cannot as a system treat people within the population in a reactive way. This can be summed up by saying, we only see Mr. Smith after he has already had the heart attack. Our system must change into one that treats Mr. Smith from day one of his life. From early childhood education programs on proper health choices, to routine physicals and risk assessments to developing a chronic condition be made throughout life. Finally when a diagnosis is made confirming a chronic condition that the patient be properly educated on how to deal with it, and be supported by a physician management team and the greater community. Many people extol the virtues of going it alone and taking care of oneself in most situations on life. Yet our research has concluded people's interests are best served by making community services available for continued education of not only those affected with a condition, but also those who are still healthy. Community interaction not only instills a sense of comradeship among those afflicted, but also provides greater compliance with treatment than people who embark on treatment alone.

Conclusions & Discussions. The findings of our current research should serve to highlight the great potential for cost savings and improvements the population's health, but also the deficiencies present currently in our system. Nationally only 4%

of healthcare dollars are spent on preventive care, while the vast majority is treating those with chronic diseases. The conditions of diabetes, heart disease and cancer have all been shown to be dramatically reduced in healthy individuals. With the ever increasing demand of the system, we have been forced to make hard choices as to how our healthcare dollars are to be spent. The notion of the 'most bang for your buck' seems entirely appropriate in making the point that preventive care and early childhood intervention efforts are so entirely cost-effective, that even while the population grows into the future the cost of the healthcare system could actually decline in real terms. If as a society we were able to substantially reduce the incidences of chronic diseases and their related complications, we could dramatically improve the lives of countless millions from ever having to suffer the morbidity of commonly preventable chronic conditions. The consequences of an unhealthy lifestyle has become of an ever increasing concern to not only the healthcare system, but our society as well. We cannot hope to continue reckless indulgence into unhealthy behavior because it is to our own detriment. The consequences are seemingly innumerable, from a less productive society economically, to an unhealthy society that is contributory to cultural decline. Throughout history healthy societies have always to do great things in the world, while unhealthy ones have declined and disappeared. While large changes most often times have the greatest effect, with respect to lifestyle changes, even the smallest change can make a world of difference.

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External Factors of Risk-Management during the ENT-Screening from the Under-School Children with Acuteness Hearing Loss

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Objectives. To study the peculiarities of external factors of risk-management from the under-school children with acuteness hearing loss and elaborate the clinical algorithm of conduction patients with such pathology.

Materials and Methods. This scientific work is integral, transversal, descriptive research which based on the indirect selection, synthesis and analysis of information from the official medical statistics "Anuarului statistic – Public Health in RM" 2003–2006. There are reflecting the demographical and health indexes, the results of ENT-screening on the Family Medicine lever. Selective, analyze research presented the five research-cases as the medico-sociological method, which implemented on the base of the Republican Center of Audiology. It included the interview with children's hearing loss's family. The research-cases realized with using the special groundwork - the card of research, which oriented on the next oblasts, such as: the nature of case (identification and studding the dates about child), family's medium (the personal dates about parents, education, harmful habits, family's and inherited anamnesis) and education consulting with the questionnaire test for parents "Yours Child has problems with hearing, has not he?!"

Results. (1) During this research were designate and group the EFRM, which in most of the causes went to children's hearing loss on conductive type in RM. (2) Was study the

dynamics of under-school children (7 years) with hearing loss from 2003/2006 and how this pathology depends of the place of life (total on RM, urban and rural): RM 2003 – 6.4‰ cases, urban – 4.9‰ cases, rural – 6.8‰ cases; and RM 2006– 4.7‰ cases, urban – 4.8‰ cases, rural – 4.7‰ cases. (3) Was release the clinical algorithm of management the pediatric patients with hearing loss, which directs to Primary Medical Service with purpose to improve and fortify children's health. (4) Result of this research is the creation of questionnaire-test "Yours Child has hearing problems, doesn't he?!" The main idea is orientation on the early diagnostics of children's hearing loss. This questionnaire-test was tested on base of the Center of Audiology.

Conclusions. The medical service will become more effective and qualitative if we will be able to make a prognosis, to organize, coordinate and to control risks, which mostly causes children's hearing loss. Family doctors must use in their daily work the clinical algorithm of management of children with hearing loss. Parents and persons which take care and are in the direct contact with children must know and be instructed about informational-educational measures such as the questionnaire test for parents with under-school children.

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Management Performance in Primary Assistance

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Background. Evolution of Republic of Moldova based on democratic principles needs an implementation of performance to be established criteria by society and for every person. Absence of performance breaks qualification of primary assistance, thus results a decrease of medical assistance system.

Materials and Methods. For the study it has been processed quantitative and qualitative analysis. statistic and scientific abstracts.

Quality problem discussed for along time must result from all action and may develop performance. It is impossible to analyze performance only from statistic of morbidity but is necessary to apply such facts as output and input using

resources rationally in medical institution. Modern society need for economy, in this case economy will progress the efficiency of service what will prosper the quality of medical service. We mention investments made in medical service become less because of reduced number of technique resulting that investments are present but performance missed. Human factor is very important for development of medical services. In the last years, quality of medical service progress obtained only with perfection of family doctors. During studies result that medical performance in medical service should be measure applied three factors: economy, efficacy, and efficiency.

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Traffic Accidents – a Global Problem?! Alarming Situation in Macedonia

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Background. Road traffic injuries are a growing public health issue disproportionately affecting vulnerable groups of road users, including the poor. More than half of the victims in traffic accidents are young adults aged between 15 and 44 years. Still serious injuries in traffic accidents are preventable. An established set of interventions in developed countries have contributed to significant reductions in the incidence and the impact of road traffic injuries.

Materials and Methods. Official statistical data are obtained from the Republic Institute for Health Protection in Skopje, Macedonia and it refers to a 5 year period from 2001 to 2006.

Results. Deaths as result of road traffic accidents are constantly growing up in the last five years in Macedonia. The number of cases with fatal injuries was 107 in 2001, a rate of 0.5/10000, compared with 2006 when it reached 140 which make a rate of 0.7/10000. Drivers and passengers are constantly at the top of the pyramid of deaths, but the number of killed pedal cyclists and motorcycle riders is permanently growing up. The fact that most of them are young people between 25 and 29 is even more terrifying. 58 drivers and passengers (54.2%) and 30 pedestrians (28.0%) lost their lives in 2001 vs. 68 drivers and passengers (48.6%) and 37

pedestrians (26.4%) in 2006. In 2001 there were 2821 motor vehicle crashes with 1937 injured persons vs. 3313 crashes and 5076 injured in 2006. Most of the motor vehicle accidents occurred in the summer months, June, July and August (32% of the total number of accidents, 2006) vs. December, January and February (16% of the total number of accidents, 2006). Categorized by gender males are far more involved in traffic accidents than females. 75% of fatal injuries up to age of 25 years refer to males (2005).

Conclusions. Car accidents can be STOPPED!! Traffic safety policy involving a wide range of participants like users/citizens, industry, police, NGOs, professionals, media, government and legislative bodies (e.g. public health, education, justice, transport, finance) is to yield effective prevention to save lives, reduce disabilities and other health consequences and financial costs as well. Increased motorization doesn't have to be a reason for increased motor vehicle crashes. Numerous factors like high speed, alcohol, seatbelts, helmets, road infrastructure and so on do affect and alter the outcome of the accidents.

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Violent Deaths in the Republic of Macedonia in 2006

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Background. Injuries and violence are a threat to health in every country in the world. They account for 9% of global mortality – more than five million deaths each year. Eight of the 15 leading causes of death for people between the ages of 15 and 29 years are injury-related. For many years the real picture in Macedonia was unclear due to methodological reasons. Since 2004 the Macedonian State Statistical Office (MSSO) is collecting and presenting official data on vital events, including violent deaths that have occurred on the territory of the country. It is the aim of this review to present statistical data on violent deaths that have occurred in Macedonia in 2006.

Materials and Methods. Mortality statistics by causes of death for 2006 for the first time was published in accordance with the International Statistical Classification of Diseases and related health problems, 10th Revision, by the MSSO. There were three categories of violent deaths: accidents, suicides and homicides which differ from each other by the factors that caused them.

Results. There were 653 violent deaths in Macedonia in 2006 which is 3.5% from the total number of deaths and make a rate of 3.2/10000. Compared with previous year the number of violent deaths was increasing for 0.3 percent

points. The structure of violent deaths by sex shows the higher participation for male, 72.9% vs. 27.1% for female. In total number of violent deaths the accidents have the highest participation of 66.6%, suicides 25.3% and homicides 8.1%. In category "accidents" the group "other external causes of accidental injury" present 24.3% of total number of violent deaths. This group comprises several subgroups but with higher participation of group "accidental exposure to other and unspecified factors (X58-59)". In category "accidents" the transport accidents present 19.3%. The group "fallings" present 14.2% and the fourth is the group "drowning and submersion" with 3.7% of total number of violent deaths. In category "suicides" the group "hanging, strangulation and suffocation" present 10.9%. In category "homicides" the group "assault by other and unspecified firearm discharge" presents 3.1% of total number of violent deaths.

Conclusions. As in other countries in transition the number of violent deaths among the population was intensified compared to previous years as a result of many socio-economical factors. Observing and following these data is of great importance for grading the outcome of legal/normative reforms conducted to decrease this trend.

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Demography and Medicine Indicators of Pediatrician Population

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Background. Management from paediatrician's population under-school period is significant causes of paediatric and integral country well-being. Children under-school are exposed more frequently to the risk factors of life, health and integral development.

Materials and Methods. This scientific work is integral, transversal, descriptive research which is based on indirect selection, synthesis and analysis of information from the official medical statistics, Public Health statistic annual about RM 2003–2007. Children under-school constituted of 5.01% (170 thousand) from the total amount of population. During 2007 year were born the 37 973 of alive new-born; the indicator of natality is 10.6‰; the indicator of infant mortality is 11.3‰. During 2007 year died 327 (76.4%) children under-1 year at hospital and 85 (19.9%) cases at home. Both, during 2007 year died 532 (14.0‰) children under-5 years. Although, the physical development of children under-school

was insufficient and has been demonstrated by physical retard (25.8‰ cases), reduced keenness of sight / visual acuity (30.4‰ cases), and reduced keenness of hearing (4.7‰ cases) and speech defect (20.5‰ cases). The majority (72.10% cases) of born children of numerous families belong to the mothers from the rural area, while in same time every fourth children was born apart from the marriages (66.5% - rural).

Conclusions. The main objective qualitative management of children care services is to promote health and wellness. to protect maternal and child's health, to improve health care coverage in rural areas, to prevent and control the contagious diseases, and to implement a national planning program IMSI. This strategy aims at improving the quality of the primary health care provided to children, and in particular, it aims to reduce the child mortality and morbidity.

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Tuberculosis in Prisons – Are the Diagnosis and Treatment of an Ensured Quality?

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Background. In 2006 and 2007, due to the poor living conditions and overcrowding, the incidence of tuberculosis was approximately seven times higher in the penitentiary system than in the general population.

Objectives. In view of this fact, our one-year retrospective descriptive study aims at documenting the prevalence of diagnoses of an ensured quality (which should include screening and sputum smear microscopy) and the prevalence of drug-resistance tests for the bacteriologically-confirmed cases.

Materials and Methods. Records of all patients admitted to the TB ward at Jilava Penitentiary Hospital between January 1st 2007 and December 31st 2007 were reviewed. All imprisoned patients who had a positive sputum smear for Koch's bacillus were included in the study. The Microsoft Excel software was used to generate tables and graphs for categorical variables and the Epi-Info statistical software was used for data entry,

validation and analysis. The level of significance was put at less 5%.

Results. The data collected showed some interesting results. Only 31% of the newly registered and relapsed tuberculosis cases were microscopically confirmed, out of which 21.8% came from newly-arrested subjects and 78.2% were from the penitentiary system.

Conclusions. It was concluded that taking a sputum smear to check for the presence of Koch's bacillus should be included as part of routine workup for all inmates with TB symptoms and / or radiological findings that support the diagnosis of tuberculosis. In addition, drug-resistance testing along with health education of the inmates would ensure a more efficient management of all new and relapsed TB cases.

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Medico-Social Aspects of Pregnancy in Women over the Age of 35 Years

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Background. The number of women who get pregnant after 40 is increasing every day, and physicians have found that women over 40 are perfectly capable of having a healthy pregnancy, labour and delivery, although the risk of complications do increase somewhat as a woman gets older. Today about 2% of women have their first child after age of 35.

Objectives. To show the causes of late pregnancy and some special risks that must be considered.

Materials and Methods. The study was conducted on a group of 22 pregnant women, aged over 35, in the period between May 2005-January 2006 in the Institute of Scientific Research in the field of Medical Care of Mother and Child. Patients' history were analyzed by the following criteria: prenatal screening tests, the number of the current pregnancy, the number of the current delivery, gestational age, mode of delivery, gestational complications, delivery complications, Apgar scores, hospitalization period in the maternity hospital and in the neonatal intensive care units (NICU, 2nd stage), the number of neonatal deaths and medico-social and economical aspects of late reproductive age.

Results. All over the world women are delaying childbearing for various reasons. Pursuit of career or financial goals, better contraception, longer life expectancy, higher education etc., have been mentioned as possible reasons for this phenomenon. Analyzing the patients' history of this study lot: it has been ascertained that 4 women (18.2%) were

nulliparae and 18 (81.8%) were multiparae. All infants of the study lot were prematurely born. Low birth weight: $\leq 1000g$ were determined in 2 infants (9.1%), 1001-1500g - in 8 infants (36.4%) and $>1500g$ - in 6 infants (27.3%). In such a situation, newborns needed absolute medical care. The hospitalization period in the maternity hospital and in the NICU (2nd stage) was 5 days for 14 babies (63.7%) and between 6-15 days for 8 babies (36.4%). There was registered one case (4.5%) of neonatal death. After the age of 35 the risk of pregnancy complications increases. High blood pressure was registered in 4 cases (18.2%), severe preeclampsia in 6 cases (27.3%), urinary tract infections in 4 cases (36.4%), fetal-placenta insufficiency in 2 cases (9.1%), IUGR in one case (4.5%). The pregnant woman of an older age also faces a higher chance of being delivered by Caesarean section. 4 women (18.2%) had cesarean deliveries. The risk of giving birth to a child with a birth defect does increase as the mother's age increases. There was no baby with chromosomal abnormalities; although none of pregnant women had prenatal screening tests done to prevent it.

Conclusions. (1). The incidence of pregnancy complications, infants with low birth weight, low Apgar scores are significantly higher for women over 35 or older. (2). The risk of giving birth to a child with a birth defect does increase as the mother's age increases.

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Dental Medicine Section

Inferior Alveolar Nerve Block – a Challenge to be Achieved

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Background. Anaesthesia is the basic stage in performing most of the procedures in dental office (especially in endodontics), its failure leads to the lack of cooperation between the doctor and patient, inadequate results in the final work.

Objectives. The purpose of this work is the analysis of the factors that may lead to anaesthesia failure.

Materials and Methods. Cadaver dissection studies, and in office anaesthesia performed at mylohyoideus nerve with the basic methods. We also studied ortopantomograms, performed other techniques. In office anaesthesia was administered at SMPHU's Dental Clinic to 13 students that were treated for various dental diseases: caries, pulpities, periodontities. In order of performances first of all we used the (1). Standard anaesthetic technique; (2). Intraligamentary & infiltrative anaesthesia; and finally (3). Anaesthesia at mylohyoideus nerve. Some of the patients had the Radiological clichés so they were studied too. The patients that didn't respond completely to the first and second steps were tested again. This time only the mylohyoideus anaesthesia was performed. Further one after 5-10 minutes we used an electroodontometer (pulp vitality tester) to analyze the changes in sensitivity of the teeth. Cadaveric dissection was performed on 5 bodies. Variations in the path of alveolar nerve were not noticed, though researches in this field were studied widely by S. Y. Kim, K. S. Hu, I. H. Chung, E. W. Lee and H. J. Kim. Significant variations in the topography of the alveolar

nerve, and canals of the teeth were found in Asians races for example four canals in first lower molars (64%), furcations of the lower alveolar nerve (described by 4 classes): I – bifurcation above the mandibular nerve II – bifurcation in upper half of mandibular notch & mandibular lingual lingula III – bifurcation in lower half of mandibular notch & mandibular lingual lingula IV – mandibular nerve branches in a plexiform changes in the path of mylohyoideus path were noticed in 1st case.

Results. The path of the mylohyoideus nerve fibre was ling in the middle of distal and mesial roots of first lower molar. additional clinic research proved that when mylohyoideus nerve was anesthetised pulp reaction to electric stimulation was much lower. The combination of this 3 anaesthesia resulted in a complete anaesthesia of first lower molar, so there was no need for additional intracanalicular anaesthesia. Patients did not complain for any kind of pain in order of devitaling procedure.

Conclusions. By this work we tried to prove the necessity of anatomical considerations in performing the anaesthesia at Spix Spine. The addition of intraligamentary and mylohyoideus anaesthesia might be essential in a vital canal preparation. Anatomical consideration plus a deep analysis of paraclinic examination might be a very important step in achieving a good anaesthesia resulting in good endodontic work.

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Treatment of the Facial Plagues without the Need of Sutures

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Background. The plagues are differentiated between them by the mechanism of the production, localization, the deepness of the penetration, affected surface, agent of pathogenesis and time elapsed from injury till his appointment to specialized services. The ideal to be achieved is the minimum time of wound healing, but this process has a biological timing which can not be modified. The best thing to be done is the optimization of treatment process. Skin in the OMF region, is rich in blood vessels, they heal pretty fast, after a chemical preparation and a minimum corresponding excision, they can be closed with resorbable or non-resorbable fibres. Not always a post-traumatic or even postoperative scar will present an acceptable esthetical aspect. In their evolution usually a series of valorising and non-valorising factors come in between: local operator corresponding conditions (perilesional blockade by local anaesthetics, chemical treatment, plague massive alcalinization, sterile bandage, immobilization).

Materials and Methods. By esthetical means, suture surface

fibers, non-resorbable. were replaced with Steri-Strip (leucoplast like material). sterile, well tolerated by the skin thanks to the material from what it's made and very good adhesion.

Results. We treated a plague at the facial level by this method with highly evidenced esthetical results. Steri- Strip besides the good margins adaptation, prevents the chaotically localization of cementing substance from fibro-scar tissue, by the uniform pressure mechanism or scar pressure therapy.

Conclusions. The usage of this adhesive material (especially in small dimension plagues) acts to a scar healing process which is more aesthetic. So we obtain a much higher postoperating aspect scars are much more irrelevant. Persons predisposing to keloizis will present the marks by no doubt. In the best case they will be attenuated in intensity by a specific and long term nursing with Zeraderm, Contractubex, Mederma, Aloe vera, Kelofibrase.

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Clinical Picture and Treatment of Vertical Dental Migrations on Partial Edentate Patients

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Background. Dental migrations are often met in dental prosthetics. They make difficulties during the prosthetic treatment, sometimes making it impossible and the consequences appear at the level of temporomandibular articulation, masticatory muscles and gastrointestinal tract. The importance of this theme results from these considerations.

Objectives. To determine the aetiology, pathogeny, clinical picture, prophylaxis and treatment of vertical dental migrations is made in this work.

Materials and Methods. With this purpose an analysis of special literature was performed. For treatment of vertical dental migrations and functional disorders appeared as consequences, it is necessary to use therapeutic, surgical,

orthodontic, prosthetic, physiotherapeutic methods, medicines and also its combinations. The treatment period of this pathology may vary from a few weeks to a few months or even years. The difficulties that may appear during the stabilizing of treatment plan depend on the case and patient's will or possibilities.

Conclusions. The most used method in treatment of vertical dental migrations is the teeth lapping (method which is used in clinic case). This method is often used because it doesn't need much time, visits, it is less invasive, not expensive and it's easily tolerated by patient.

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Sinusal Complications of Dental Extraction

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Background. Topographically, the maxillary sinus is situated nearly to the tooth arcade from the upper jaw. Some pathologies of the maxillary sinus appear in different therapeutic and surgical manipulations on the upper teeth. Trauma of the maxillary sinus floor during different surgical interventions can produce its inflammation.

Objectives. To analyze the failures and the complications of the dental extractions on the upper jaw.

Materials and Methods. In order to reach the goals, there were analyzed the medical documentation of the patients that had any complications of the dental extraction and were treated in the Municipal Stomatological Center "Negruzzi 3", from Chisinau.

Results. During the 2007 year, in the Municipal

Stomatological Center "Negruzzi 3" from Chisinau, were examined and treated 9 patients with maxillary sinus complications after the dental extraction on the upper jaw and as a rule all of them were sent to the stationary to continue the treatment.

Conclusions. Sinusal complications of the dental extractions are not so relevant, but they need a complex treatment in order to avoid any serious local or general lately complications. The dentist and the maxillo-facial surgeon are obligated to take care of these complications during different therapeutic and surgical manipulations on the upper teeth.

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Opalescence - No Problems with Teeth Bleaching

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Background. Teeth bleaching has always been patient's major complaint on one side and doctor's hesitations on other side. The most of the methods has the same principle: bleaching effect of acids on teeth tissue. This method is considered to be very aggressive, uncontrollable and unmannered. The development of new substances with bleaching effect emancipated new methods and technologies

Objectives. Aesthetics in dentistry became its indispensable part, so the number of patients who like to whiten their teeth is in continuous growth, that's why we have to find the right solution. New non-aggressive, effective, long lasting and less side effects, methods promotion are this paper's aims.

Materials and Methods. The study was based on 15 patients, 3 of them with flourosis and 12 with aesthetic complaint. We

used the Opalescence® Ultradents system which contains the 15% gel of carbamide peroxide for patients with flourosis and 10% percent for the rest. It was applied for 8 hours during the patients sleep on special designed tray.

Results. Opalescence system came to act very fast and effective. We mentioned the first results from second visit. First we bleached maxilla teeth. The mandible teeth afterwards so patients realized the changes. Hyperestisya came to act only in one case, and it was mannered easily.

Conclusions. Opalescence system came to act as very peaceful with dental tissues. No patient from our study had to perform special remineralisation procedures; also their diet hasn't been changed.

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Light Aesthetics in Restoration on Implant with Metal Abutment or on Tooth with Metal Inlay

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Objectives. To reach the light transmission through the restoration (with ceramic crown on titanium abutment, or on metal inlay).

Materials and Methods. The following materials were used: ceramic crown based on impress ceramic, metal inlay, titanium abutment, Carbide Burs, a set of colours “Kerr Color + Plus”, and cement “Panavia F2.0 Dual-Cure”.

Clinical Case. A 55 years old woman came to the clinic with the diagnostic: a gap of the tooth nr.2.2, there was an old bridge with bad esthetical view. Because of this esthetical reason it was installed one implant in this place, and manufactured temporary crowns. After 3 months we installed the 15 degree angle metal abutment, because we don't have a Zirconium abutment with such angle. It was indicated for the patient to make 6 ceramic crowns in frontal part on the upper Jaw for the good esthetical result. After fitting this crown, the colour of this tooth was grey comparing to another. To eliminate this defect of colour we cut a window (a hole) in the titanium abutment with carbide burs, we cut also a little all around the abutment for the colour and coated it with white-opaque colour from “Kerr Color + Plus”. After fitting the

tooth, it was exactly the same as the neighbour teeth, because the light waves were going through the metal abutment and not reflecting from him. After this we fixed the work on the special white colour cement PanaviaF2.0 Dual-Cure. The second clinical case is made the same like previous but the ceramic crown is fixed on the old metal inlay fixed in the root. It wasn't a good purpose to remove the metal inlay and to change it for a Zirconium inlay, because the root can split (fracture). We cut with carbide burs the same window/hole in the metal inlay; we coated it with white colour for further better esthetical results.

Results. We had 3 cases with metal abutment and 2 with metal inlay. We see that after this method the tooth has not a grey colour and the light is going through it like in the natural tooth. We reach good esthetical result and patients are happy.

Conclusions. Thanks to this hole in the metal abutment or inlay, coating it with white colour and using the white cement we receive a good esthetical result which we recommend to use it in your practice.

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Microbiological Aspects in Dental Caries' Evolution and Treatment

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Background. Dental caries is one of the most widespread pathology of the oral cavity that affects teeth hard tissue. Beside all the amount of the factors that produce caries, it is to remark the exclusive influence of the oral germs in formation, evolution and intensity of the caries process.

Objectives. To determine the micro-organism's crops that are present in caries cavity and to follow indirectly evolution of oral germs make-up during caries cavity development (superficial, middle, deep caries cavity) and to determine the feed-back relation between oral germs make-up and the incidence of caries processes.

Materials and Methods. From an amount of 25 patients with caries cavity (aged from 18 to 35 years) was taken necrotized dentine from caries cavity at different level of evolution,

to determine the germ's crops that are present. Also was the percentage of each germ culture for each caries cavity type.

Results. We succeeded to obtain the germ crops in laboratory from necrotized dentine and were determined that there is a percentage difference in germs culture make-up for caries cavity at different level of evolution. Also was determined that most of the patients have more than one caries cavity and an insufficient oral hygiene.

Conclusions. The microbiological aspect doesn't have a big influence in caries cavity treatment (because of the anatomo-morphological peculiarities of dental tissue). The practical aspect of this work is to prevent the occurrence and to make a forecast for dental caries evolution.

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Contemporary Aspects of Functional Impression-Taking with Suction

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Background. Success of prosthetic treatment in complete edentations is evaluated by ensuring stability to the full denture restoration. This is determined by: suction, adhesion, muscular tonicity, degree of the retentivity of the anatomic elements in the prosthetic field. These factors are made evident in the process of functional impression-taking.

Objectives. To make a comparative analysis of impression-taking techniques with suction and to determine some clinical criteria of using them.

Materials and Methods. 8 selected patients (5 men, 3 women) have been thoroughly examined and treated using full prostheses. All presented total bimaxillary and unimaxillary edentations as well as the same degree of atrophy of alveolar processes. The margins of functional impressions with suction have been shaped using the Herbst test and doctor's passive manipulations.

Results and Discussions. It has been established that using the functional tests after Herbst in functional impression-taking with suction the margins of the dental prostheses were situated below the valve region. The fact has been confirmed by the measurements on the working models obtained through different functional impression-taking techniques with suction in one and the same patient. In our opinion, the respective functional tests are movements of amplitude - a fact also mentioned by Herbst who asserted them to be efficient in the presence of retentive anatomic elements.

Conclusions. Choosing a technique of functional impression-taking with suction is dependent upon the degree of alveolar processes expression, maxillary and mandibular tuberosities, depth of palatine vault, etc.

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Eruption of the Wisdom Teeth. Reasons for Extractions, Prevention of Complications

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Background. Wisdom teeth, also known as third molars are the last teeth to erupt. This occurs usually between the ages of 17 and 25. There remains a great deal of controversy regarding whether or not these teeth need to be removed. A tooth becomes impacted due to lack of space in the dental arch and its eruption is therefore prevented by gum, bone, another tooth or all three.

Objectives. To evaluate the features of the 8 tooth eruption, assessment of the aetiology, incidence, type of impactions and the possible complications: local and general. Determination of the methods of treatment: conservative or surgical.

Materials and Methods. There were studied several X-rays of the patients with difficult eruptions, impactions of the wisdom teeth. In some cases we indicated tooth extractions, in order to prevent infectious and orthodontic complications.

Results and Discussions. It is generally suggested that teeth that remain completely buried or un-erupted in a normal position are unlikely to cause harm. However, if these impacted teeth are in an abnormal position, their potential for harm should be assessed which can cause infections, pericoronitis, decays, damages to adjacent root, dental crowding, formation of cysts and tumours, orthodontic changes and seldom mandible fractures.

Conclusions. Impacted wisdom teeth are almost certain to cause problems if left in place. That's why it is necessary to take into consideration a complex treatment, including the surgical one, in order to prevent the harmful changes in the oral cavity.

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Bioactive CaP-Coated Implants: Studies and Evaluations

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Objectives. Dental implants are thought to date back to Egyptian times when seashells were trimmed and shaped before being hammered into the jaw to replace missing teeth. In more recent times metal is thought to have been introduced as an implantable material. In 1998, Crubzy famously published in Nature magazine the discovery of a ‘wrought iron’ dental implant found in the jawbone of a second century CE Gallo-Roman.

Materials and Methods. The true birth of modern implantology can be found in the late 1950s and 1960s. While a number of clinicians were working with metals such as steel and implants called blade design, which were said to integrate by the formation of a pseudo-periodontal ligament (in truth a connective tissue capsule), Dr Per-Ingvar Branemark of Gothenburg Sweden, and Dr Andre Schroeder of Berne Switzerland were both focusing their attentions on the properties of titanium. It was Branemark who, in 1952, had a lucky (some would say serendipitous) discovery. Branemark set out to repeat the effect of fusing metal with bone and subsequently demonstrated that under carefully controlled conditions, titanium could be shown at the histological level to structurally integrate with living bone. Branemark named the phenomenon osseointegration. The first practical application of Osseointegration was the implantation of new titanium roots in an edentulous patient in 1965 and the first ground breaking study was published 16 years later by Adell et al. in the International Journal of Oral Surgery. The first commercial implants to be sold were called Biotes, but these were renamed to

reflect the inventor and indeed the Branemark implant. Alfa Gate is a dynamic, rapidly expanding high-tech research and production company. Alfa Gate designs, develops, manufactures, and markets an advanced range of dental implants and superstructures. Alfa Gate world-class scientists and engineers are committed to continuous research and development of new and progressive products and technologies for the global dental implantation field. Laboratory and field studies in the areas of tissue culture and tissue engineering are conducted jointly with prestigious dental laboratories and university dental schools.

Results. Bioactive coating - represents the second generation of bioactive calcium phosphate (CaP) coatings on dental implants. The bioactive property of CaP results in a faster osteointegration of the implants following insertion. The bioactive CaP coating holds characteristics such as limited thickness of, a finely crystalline structure, increased solubility, and a controlled absorption rate. The Bioactive coating goes through metabolic degradation and after adequate time the thin layer of CaP crystals will be substituted by newly regenerated bone.

Conclusions. The bioactive coated implants can induce faster and significantly greater in vivo osteointegration than S.L.A. surfaced implants.

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Aetiology of Toxic Osteomyelitis of the Maxillaries and their Treatment

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Objectives. The tracing of the pathogenic factors involved in the apparition of the disease was attempted when studying the clinical and laboratory data of 15 patients treated in the oromaxillo-facial surgery clinic, when they were diagnosed with chronic osteomyelitis of the maxillary. The studied patients were or still are drug addicts. We have positive results in the treatment of cases of toxic osteomyelitis of the maxillaries after the local administration of osteomedullary embryo cells, surgical treatment.

Materials and Methods. The detailed anamnesis of the evolution of the disease in every patient, a thorough clinical exam, photography. Supplementary methods - laboratory based-general blood tests, biochemical blood tests, general urine test, radiography.

Results. One of the important factors in the identification of the cause and mechanism of development of this disease is the study of the contents of the used substance and the interrelation between the contents with the osseous tissue. From the words of our patients we have understood that this illness has appeared after the use of a drug called “Perventin”. Besides the basic substance, which is the ephedrine, this drug also contains other substances, like red phosphorus and iodine which lead to trophic changes when accumulating in the tissues. Considering the

fact that surgery has no therapeutic effect on some of the patients of this group (these patients probably continue using drugs) we have decided to implement a conservative pre-operation treatment schedule. We firstly perform the desintoxication: sol. Atropine - 0.1% 1 ml intramuscular for 5 days, the basic antidote in phosphoric poisonings, the changes being observed through biochemical blood tests. On the 7th day of desintoxication, we insert activated osteomedullary embryo cells (Osteostimulin) locally, under the mucous membrane in the affected areas, in 4 days the procedure is repeated, and the necrectomy is performed after some time.

Conclusions. Through its action, the ephedrine leads to a long term vascular spasm which induces angiopathy implicitly leading to the perturbation of osseous alimentation. The phosphor accumulated in the tissues of the organism leads to intoxications and trophic disorders. Pathological osseous changes, initially without a septic component, through the overinfection in the vicinity may lead to the clinical picture of diffuse osteomyelitis with no limiting marks of the extent, which is not typical for the classic types of osteomyelitis. We achieve positive results in the treatment of toxic osteomyelitis of the maxillaries after the local administration of osteomedullary embryo cells, surgical treatment.

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Callisia Fragrans. Phytotherapy in Treatment of Gingivitis

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Background. Gingivitis – is the inflammation of the gums. Microorganisms that produce gingivitis are from the following groups: Actinomyces, Fusobacterium Nucleatum, Lactobacillus, Veillonella, Treponema and a few forms of Streptococcus. Gingivitis can be located in one, more, or can involve all teeth. Gingivitis can be produced by insufficiency of mouth hygiene, some general diseases, menstruation, pregnancy and puberty. But the most important moment is dental plaque and tartar. Dental tartar is a permanent lesional factor, that produce gum detach and formation of the periodontal pockets. It is known that Callisia fragrans contains strong bio stimulating substances that increase the biological processes and the immunity system cells. The investigations demonstrated that Callisia fragrans contain ascorbic acid, pectines, minerals like K, Ca, Fe, and others. Different types of ointments, lotions and dressings made from Callisia fragrans's

juice can be used like substances with very good disinfectant properties that also stimulate the regenerative processes and epithelization. This plant is successfully used in treatment of a large variety of diseases.

Objectives. To be able to realise an efficient treatment of gingivitis using phytotherapy methods. To demonstrate the efficiency of the substances obtained from Callisia fragrans in treatment of gingivitis.

Materials and Methods. During the treatment of gingivitis there was used an elementary dentistry unit, curettes, dental scaler, and Callisia fragrans leaves. The juice obtained from squeezed leaves was used for allergy test and the irrigation of the periodontal pockets.

Results. It was demonstrated the efficiency of Callisia fragrans in the treatment of gingivitis.

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Unilateral Subperiosteal Implant

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Background. In the implant prosthetic options there are different techniques depending on the edentation in case of complete edentulous patients we have three options for treatment. First is implant and tissue supported overdenture, second all implant supported overdenture and the third is fixed detachable restoration. In case of partial edentulous patients we have single tooth implant restoration (endosteal) and in case of free end distal extension we use Single Implant Placed distal to the more posterior abutment or fixed prosthesis made to contact the implant and natural tooth abutment, but all the previous methods for treatment of partial edentulism patients need sufficient flat bone ridge. but in case of insufficient bone ridge how we can resolve the problem with implantology treatment. Unilateral Subperiosteal Implant is a treatment of partial edentulous with severe alveolar ridge resorbtion diagnosed for a fixed prosthesis with natural co-abutments benefits and description of the modality used in the teaching case.

Objectives. To compare between the unilateral subperiosteal implants and the traditional methods of implantology.

When the volume of the residual alveolar ridge is insufficient to receive endostal implants, use of the unilateral

subperiosteal implant is the treatment of choice despite Unilateral Subperiosteal Implant requires more maintenance than endostal implants but have comparable success and survival rates. This modern technique was developed specifically to treat patients with insufficient available bone in the alveolar ridge for the insertion of endostal implants. In many respects, mainstream unilateral subperiosteal implant fabrication and insertion protocols are simpler than those for endostal implants. The implants are custom made, designed and cast from was-ups on models of the supporting bone. In mainstream cases these models are poured from direct bone impressions obtained following tissue reflection. Tissue reflection, though more extensive, is essentially the same as that for endostal implants. No osteotomy is required for this technique. During which is termed the stage one visit, taking the direct bone impression is easier than preparing osteotomies for endosteal implants. In the stage two, following laboratory fabrication of the implants, insertion is simple as well.

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Position of Inferior Alveolar Nerve in Different Type of Mandible Bone Resorbtion

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Objectives. To compare the different type of mandible bone resorbtion and analyze position of inferior alveolar nerve in each case.

Materials and Methods. A total of 5 bones from adult cadavers were selected each one corresponds to Lekhom and Zarb classification of bone resorbtion. After several measurements each bone was photo registered and cut on cross-sectional fragments. Each cross-sectional image was evaluated and compared (C.T. and X-Ray).

Results. In special literature there a lot of classification of dental arch defects but no one can be implementing in dental implantology just being correlate with quality and quantity of bone bid. Our result offer answers able to correlate with

quality and quantity of bone offer. Height, width, extension, density and cortical to cancellous bone ratio are different; so is the position of inferior alveolar nerve is different in every case of mandible resorbtion. Knowing the exactly type of bone atrophy, clinician is able not only to escape inferior alveolar nerve during implantation but also to establish exactly the place where to collect the bone graft from.

Conclusions. Although more extensive testing is needed to explain the clinical implications of these results, the findings of this study may help clinicians choose the most appropriate place of implantation and bone graft collecting.

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Study about Dimensional Aspects of Teeth and Arcades in Normal and Modified Occlusions

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Objectives. To establish the tooth width and arch dimensions for normal and modified occlusions, and to compare them for boys and girls with different classes of malocclusion.

Materials and Methods. A number of 70 study-casts with normal and modified occlusions represented the samples for study. The measurements were made with an orthodontic calliper.

Results. After the analysis of data, we observed significant differences in tooth width and arc dimensions for normal

and modified occlusions. It was noticed that there were no significant differences in arch dimensions for the studied casts. The significant differences were for both tooth width and arch dimensions for boys and girls.

Conclusions. The results of this study sustain the evidences demonstrate by the anthropologists and help to understand the orthodontic aspects of dimensional criteria of dental arches for different classes of malocclusion.

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Pharmacy Section

Study of the Chemical and Physical-Chemical Methods of Analysis of the Metoprolol

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Metoprolol is a drug with a conceptional new chemical structure (\pm) - 1-(isopropylamino)-3-[p-(2-methoxyethyl) phenoxy]-2-propanol L-(-)-tartrate widely used in medical practice in the treatment of the cardio-vascular diseases, which represent an actual problem for society. There are no methods of the identification and quantitative estimation of the metoprolol in the biological liquids, but for its chemical and toxicological investigation the analysis of the pure substance and of the drug (50mg) are needed. We applied in our study various chemical and physical-chemical methods of analysis of the metoprolol. We performed specific identification reactions and reactions of identification. Also we used the thin layer chromatography on silica gel G plates. We used the following solvents: benzene:hexane:ethanol 95% (3:5:5), chloroform: methanol:ammonium hydroxide 10% (80:15:2). We used as a relevant the iodine vapour and the Dragendorff reagent. The

Rf value was 0,46 and 0,54 respectively. We determined the spectre of the absorption of the metoprolol pure substance in acid condition, alkaline medium, alcohol and ether. The absorption peak was at 222 ± 2 nm length of the ultraviolet ray. Subsequently we designed the standardization curve. The Bouger - Lambert - Beer law is true for intervals between 1 and 20 μ g/ml. Results and conclusion: we determined new identification methods of the functional groups, the value of Rf in the thin layer chromatography on silica gel plates and the peak of absorption of metoprolol in ultraviolet. Subsequently we performed the dosing of the pure substance and of the tablets (50mg) of metoprolol using the spectral-photometric methods, with the relative error being $\pm 2,3$. All these methods will form a base for the analysis of the metoprolol in the biological liquids.

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Research of Physical-Chemical Properties and Determination of Quality Parameters for Metipheron

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Objectives. To research a new compound from isotiourea group - metipheron (Dimetilfosfit- S-metilizotiuronii) of antihypotensive action in propose to create the normative documents and for future to obtain the optimal pharmaceutical forms. It was determined the physical and chemical properties and some quality parameters of metipheron.

Materials and Methods. Determinations were accomplished in accordance with requirements of RPh. the X-th edition.

Results. Obtaining of some new classes of organic compounds with benefit action over the organism is extreme nova days. Of a great interest for medicine are derivatives of tiourea because of their antihypotensive action. In comparison with other compounds of this group metipheron exhibits more pronounced antihypotensive action and is six times less toxicological. The substance exhibits a high stability, is obtained by accessible and cheap synthesis method, it doesn't have adverse effects. All this advantages made up us to offer this compound for utilization in the antihypotensive therapy. Our initial investigations were focus over organoleptic control

of substance, determination of solubility and transparency of solution. The analyzing substance is a white crystalline powder; special odour with bitter weak taste. Metipheron is very easy soluble in water, readily soluble in alcohol, chloroform and insoluble in ether. Aqueous and alcoholic analysing solutions are transparent. Melting point was determined accordingly with the RPh. X-th edition, being 140- 142 0 C. The content of water and volatile substances were determined by drying method and Karl Fischer- titration method. The content of water was 0.01%. It was determined and stabled the admissible limits of impurities: of chlorides (not more than 0.01%), sulphates (not more than 0.05%). Residuum by calcinations was 0.1%. Determinations of specific impurities came because of synthesis are determined by HPLC and TLC. The CSS accomplished for identification of metipheron.

Conclusions. In issue we could mention that indices of quality which were determined characterise physic-chemical properties of metipheron are included in the project of AND for metipheron substance.

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Chemico-Toxicological Investigations on Metochlopramide

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Metochlopramide (4-amino-5-chloro-N-(2-diethylaminoethyl)-2-methoxybenzamide) presents a medical preparation which is widespread in medicine, due to antiemetic action and normalization effect of the motor and secretory functions of digestive system, by central mechanism. The overdosage and prolonged period of using, as another drugs may lead to abuse. There are registered many methoclopramide intoxication cases in the chemico-toxicological practice, but identification and dosage methods in the biological liquids are absence. In this study we applied chemical and physico-chemical of metochlopramide analysis in the pure substance which were compressed after the blood plasma extraction. The identification reactions of formation of azocolorant for metochlopramide identification has been used. The chromatography method on thin layer on G silicagel plate in some systems: methanol-ammoniac 25 (100:1), chloroform-metanol (90:10), as a relevant, Dragendorff reagent has been used. The absorption spectrum in UV of metochlopramide in different solvents such as: 0.1 mol/l

chlorhydric acid, ethylic alcohol and chloroform have been registered, obtaining maximum absorption on the respective wave duration: 273 and 309 nm; 275 and 309 nm; 270 and 311 nm. HPLC, is another method which was used, obtaining 2,6 min retention time peak. In IR the absorption spectrum in absorption interval 400-4000 cm^{-1} (vaseline oil suspension) with respective absorption bands 1590, 1614, 1530, 1496, 1254, 1311 cm^{-1} has been registered. Chloroform from basic medium has been used as an extractant from metochlopramide extraction from blood plasma. There were registered as a research result the metochlopramide identification and dosage methods from pure substance, comprised and extraction and determination of this compound from biological liquid. The chemico-toxicological analysis methods of metochlopramide for medicinal substance we established.

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Paracetamol Study in the Chemico-Toxicological Test

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The chemico-toxicological investigation and drug therapeutical effect on body resistance in this study has been included. Paracetamol (Acetaminophen) is an analgesic and antipyretic action preparation. The inactivation ways by sulpho and glucurono conjugation become saturated and leads to P450 cytochromium oxidation. Intermediate metabolite, being very active N-acetyl imidoguinona is conjugated immediately with glutathione. Glutathione become insufficient in severe intoxications. Free N-acetyl imidoguinone actions with membrane glycoproteins. Paracetamol toxicity mechanism consists of glutathione hepatocellular reservoirs which lead to cytolysis with hepatic necrosis. The intoxication signs appear in 5-8 g, but in children, the dangerous doses can be less.

Our purpose consists of the Paracetamol identification

and dosage analysis methods in the biological liquid. There were used Paracetamol physico-chemical methods in the pure substance for its analysis in the blood plasma. The reaction of identification of FeCl_3 , Nessler reagent, Liebermann. Chromatography on the thin layer in the ethylacetate-metanol-ammonia 25 % (85:10:5) there were used. FeCl_3 is used as an eluent, obtaining $R_f = 4.5$ cm. There was used UV spectrophotometric method in the hydroxide for identification obtaining maximum absorption on 244 and 258 wave lengths. PH = 3,0 value of the extraction medium with chloroform organic extractant. The used methods were applied according to chemico-toxicological analysis conditions of Paracetamol in the biological liquids.

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Contribution in Studying Chemical-Toxicology of Aminophylline in Biotransformation Process

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Background. In medical study of toxicology, investigation of chemical-toxicology shows special interest in the last few years. Methods applied in these investigation permits to find unbalances which appeared in medical preparation in case of differential pathology.

Objectives. Chemical-toxicological investigation of aminophylline, in evaluating some biochemical aspects about aminophylline metabolism.

Medical disease like asthma and hypertension confront with problems of organism resistant last few years with parallel proposed medicine. It differs from children to adults or person to person because of metabolism of medical components, which depends on microsomal system of the liver. Aminophylline (1,3-dimetilxantilxantino-(1,2)-etilendiamina) is used largely in medical practise because of its antiasthmatic action. Administration of aminophylline to patients affected with chronic hepatitis because of microsomal insufficiency, its metabolism is not complete, which is interrupted by formation of theophylline and finally by administrating of repeated doses of aminophylline, there fare accumulation of

theophylline which is very toxic for the organism. The main idea of this work was to develop physical-chemical methods by investigation theophylline Isolation tests from biological liquids were affected in PH diversions.

Results. The results were confirmed by thin layer of chromatography application. Application of mobile phases of methanol-sol.ammonium25% (100-1.5) with Rf 0.75, and UV spectrophometry with maximum absorption by wave length 275 nm, IR spectroscopy (suspension in oil of Vaseline) with band absorption 1670,1717,1567,715,980 cm (KBr) Identification of theophylline was determined by HPLC method. This method implicates column C 18 Lichrospher 100-RP-18C with precolumn Lichrocort-124-4 in mobile phase trietilamine 146 mcl, Phosphoric acid 750 mcl, Water till 530 ml, PH-3,3 with NaOH solution 10% and apply Acetonitril till 750ml. Current rate is 0.6ml/min. There fare conditions for theophylline isolation from blood serum and which was confirmed by physical-chemical methods.

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Elaboration of the Technology of Vaginal Suppositories „Raviset”

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Objectives. In the process of obtaining the vaginal suppositories „Raviset” whose component is the medical substance dietilfosfat S-etilizotiuron (DSE) there appear some difficulties in obtaining a suppository composition with maximal release of active substance. In order to avoid these difficulties and to elaborate an optimal composition in the process of fabrication of vaginal suppositories „Raviset” - the original antihypertensive remedy of isotiourea derivatives with phosphorus content - there were used different auxiliary substances.

Materials and Methods. The pure substance of DSE and three series of the suppositories were used in the analysis; PEG-400, PEG-1500, PEG-6000, suppocire and lanoline anhydrous were used as auxiliary substances.

Results. DSE is a powder a little hydroscopic, that's why at the preparation of the suppositories there were used auxiliary substances which prevent the wetting process of the substance. Further more compositions of auxiliary substances were studied: The first composition – DSE 0,1, Supocire up to 2,0; The second composition: DSE 0,1, purified water 0,1, Anhydrous lanolin 0,1, semisynthetic glycerids up to 2,0; The third composition: DSE 0,1, PEG 400-0,2, PEG 1500-1,0, PEG 6000-0,7. The technological flow for the selected compositions was elaborated. The quantity of the auxiliary substances weighted for a series of the product is put in a mixer that has a cover for heating and it melts at 450 C. DSE is placed in a different pot where gradually

a part of the auxiliary substances is added and it is mixed until a homogeneous suspension is obtained. The suspension is added to a part of the melted mass that is continuously stirred until a homogeneous mixture results, which then is added little by little to the rest of the melted auxiliary substance. It is stirred for other 20 min. Further the homogeneity of the melted mass has to be verified visually. If the mass is homogeneous, it is transferred in certain quantities in the divided pot of the machine equipped with an agitator and a cover for heating. The shaking is kept during the whole process of pouring. The mass of the suppository substance is poured into forms in the shapes of sockets and let to cool. There was verified the aspect, medium weight, individual weight of the suppositories (2,0 g) and also the tightness according to the "Rate-setting specification of the quality". There was studied the bio disposability of all prepared compositions. As result it was confirmed the reasonable selection of the composition N 1 from which the maximum quantity of the active substance is released during 45 min.

Conclusions. There were prepared three rational compositions for vaginal suppositories. As a result of the Bio disposable research it is proposed the optimal composition of vaginal suppositories „Raviset” using suppocire as an auxiliary substance.

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Drug Safety: Toxicological and Bioethical Aspects

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“Every treatment represents a directed intoxication” Cheymol. During the last decades it has been demonstrated by a number of studies that medicine morbidity and mortality is one of the major health problems which is beginning to be recognized by health professionals and the public. It has been estimated that such adverse drug reactions (ADRs) are the 4th to 6th largest cause for mortality in the developed countries like the USA. They result in the death of several thousands of patients each. The percentage of hospital admissions due to adverse drug reactions in some countries is about or more than 10% (Norway 11.5%, France 13.0% and UK 16.0%). Some countries spend up to 15-20% of their hospital budget dealing with drug complications. Beside ADRs, medicine-related problems include also – drug abuse, misuse, poisoning, therapeutic failure and medication errors. These problems are also caused by alack, in some countries, of legislation and proper drug regulations, including ADR reporting, a large number of substandard and counterfeit products circulating in their markets, a lack of independent information and the irrational use of drugs. The information collected during the pre-marketing phase of drug development is inevitably incomplete with regard to possible ADRs. This

is mainly because of insufficient testing of drugs and lack of complete information about rare but serious adverse reactions, chronic toxicity, use in special groups (such as children, the elderly or pregnant women) or drug interactions. It took many decades before the deleterious effects of aspirin on the gastrointestinal tract, of the phenacetin on the renal system and of the thalidomide on the intrauterine growth of the infants became apparent. Recently the Cyclophosphamide, Losartan and Levofloxacin proved to cause new types of dangerous reactions, but therefore these drugs are still used in therapy. Our research aims to identify as much as possible group of drugs that cause most of the death-causing ADRs which are still used in medical practice in different countries of the world, including the Republic of Moldova; to describe the toxico-chemical reaction of these drugs and approach the pharmaceutical bioethical aspects. Using the statistical wide-world data, as well as the unofficial reports of some drug intoxications we present the list of drugs reported as intoxication-causing at different groups of individuals, trying to identify the reasons and mechanisms of intoxication.

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Application of Physical-Chemical Methods in the Chemico-Toxicological Analysis of Ketotifen

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An actual research consists of chemico-toxicological investigations of the medicinal preparations. The identification and dosage of some interest pharmaceutical substance by the application of physico-chemical methods presents a rapid and sensible analysis. Ketotifen 4-(1-methyl-4-piperidylidene)-4H-benzo[4,5]cyclohepta[1,2-b]thiophen-10(9H)-one is widely used in medicine, in the treatment of multisystemic allergies, allergic rhinitis and dermatosis. It is referred to the preparation group with membrane stabilizing properties on mastocytes which leads to the patient situation improvement, preventing the asphyxia access appearance. Pharmacological effects of ketotifen lead to phosphodiesterase activity elevation; increase of intracellular contain of cyclic adenosinmonophosphat with Ca^{2+} ions permeability block and the establishment of cellular membranes with decrease of mastocyte degranulation. Overdosage and prolonged using leads to abuse having adverse and toxic action. This way this preparation manifests an interest in the biological liquids.

Our purpose consists of study factors (pH – medium value, extragent polarity) which act in the process of compound

isolation from blood plasma. Ketotifenum having low basic properties, can be extracted both acid and basic medium. As an extragent, we used chlorophormum, which has a specific chorecter for compounds in unneon forms from biological liquids. It is very important pH value which permits the compound isolation from biological liquid, its passing from the ionized form in the molecular one, promoting extraction efficiency with lipofilic solvents. Ketotifenum was extracted from the blood plasma after acidulation with sulphuric acid (pH 2.5-3.0) and proteins precipitation with trichloroacetic acid. Acid extracts there were spectrofotometricoly studied on 300 nm wave length. In chromatography on the thin layer we applied silicagel phagues in the following solvent system: toluol – acetone – ethylic alcohol 96%, 25% ammonia Solution (45: 45: 7,7 : 2,5); benzene-dioxan - 2,5% ammonia (60 : 35 : 5); benzene – acetone – diethylic ether – 25% ammonia (40 : 60 : 10 : 3); for identification the formation of ketotifenum crystals in n-hexan there were used. The studied methods were used in practice of the chemico – toxicological analysis.

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Human Factor in the Use of Medicinal Plants

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Background. At the beginning of this millennium, it is mentioned in our medical world the orientation of the therapy to natural remedies, preponderant of vegetable origin. The humanity being in tension with the imperative of the third millennium "healthy way of life", more and more use medicine plants not only in the treatment of different diseases, but pre-eminently to prevent them.

But how correctly and suitable are using medicinal plants? This question represents the purpose of this scientific research.

Materials and Methods. It was done a statistical-analytical study that includes tests based on the opinion questioning. It was drawn up questionnaires with 30 subjects, to elucidate the attitude of the human being about the use of medicinal plants in the prevention and the treatment of the diseases. The questionnaires were applied on a sample of 150 persons of different ages, sexes, sections of the population, studies.

Results. This statistical-analytical study indicates that 72% of all the persons included in the research use medicinal plants both in the treatment and in the prevention of the diseases and in the promotion of a healthy way of life. The factors of the decision in the use of medicinal plants are divers, but they can be grouped together in some categories: popular tradition-37%; the indication of the doctors-26%; somebody else's experience-22%; their own convictions-8%; others-8%. The different of the use justification, 82% of all the

persons included in the research have the conviction that "The plant can't do me something bad".

More than that, 2/3 of the persons who use medicinal plants don't have a diagnosis settled by the experts in the area, but 80%-don't count on the compatibility and incompatibility of different medicine plants. 60% of the persons that use medicinal plants don't know the source of the vegetable drug, the conditions of the growth, harvest, and drying of the medicinal plants. Only 30% express worry given the ecological aspects and medicinal plants. Vulnerable aspects are: the way of preparing the medicinal forms in home conditions (58%-don't respect, simplify or voluntary change the way of preparing); the way of administration (42%-don't respect the administration scheme); the length and the consistency of the treatment (39%-use medicinal plants spontaneously or with interruptions).

Conclusions. The analysis of the results of this scientific research outlines next few conclusions: the necessity of some practical informative plans to aware our population about the big importance of medicinal plants in the life of every human being and to "build" a correct and suitable attitude in the use of medicine plants in the prevention, treatment and a healthy way of life.

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Significance of Development of a Paediatric Dosage Form

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Numerous drugs used in infants and children are not available in suitable liquid dosage forms. The development of extemporaneous dosage form requires selection of appropriate drug concentration and excipients, assurance of stability and palatability, and adequate funding. Sharing of the research findings on formulations through presentations and publications should lead to their improved use in infants and children. Our patients should not be expected to wait for years and even decades for the drug to be labelled for the paediatric. Why different from adults?

- Pharmacokinetics may be different
- Pharmacodynamics may be different
- Profile of toxicity and adverse reactions may differ
- Need for different, suitable for children, pharmaceutical forms...

General risk factors that predispose children to develop an adverse reaction to a medicine (medical aspects) Risk factors that predispose children to develop an adverse reaction to a medicine can be physiological, indirect or iatrogenic.

Physiological causes for increased risk:

- young age, e.g. neonates and infants with the greatest physiological differences from adults;
- continuous changes of medicine dispositional parameters during maturation in all age classes.

Indirect causes for increased risk:

- greater prevalence of polypharmacotherapy, e.g. in the neonatal intensive care unit;
- greater length of hospital stay, e.g. children with congenital or chronic diseases;
- critically ill children, e.g. those who have neoplastic diseases.

Iatrogenic causes for increased risk:

- use of unlicensed and off-label medicines with very little information regarding appropriate dose, e.g. medicines used in orphan diseases such as cystic fibrosis;
- insufficient number of well-trained health-care professionals to treat seriously ill children.

WHO Promoting Safety of Medicines for Children and Recommend:

- Create a “WHO Paediatric Model List of Essential Medicines” and “WHO Paediatric Model Formulary”
- Form a sub-committee of the respective WHO Expert Committee to facilitate work on paediatric medicines
- Update WHO treatment guidelines to incorporate latest paediatric evidence and dosing information
- Promote appropriate development of paediatric formulations and upon need develop pharmaceutical quality control specifications
- Intensify work on pharmacovigilance of paediatric medicines

- Give paediatric medicines priority in Prequalification Programme
- Consider giving additional regulatory advice and training in order to facilitate development and regulatory approval of paediatric medicines
- Guidelines for registration of fixed-dose combination medicinal products.

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Cerebral Malaria – the First and Single Case in Republic of Moldova

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Cerebral malaria is the most important complication of falciparum malaria. However, its pathophysiology is not completely understood. The basic underlying defect seems to be clogging of the cerebral microcirculation by the parasitized red cells. As in many cases in our clinical case the first diagnose was misdiagnosed. The doctor offered diagnosis of pharyngitis, because was present fever, migraine, sinusitis and tension headache. Then, after some another doctors and specialists involvement, the investigations of this unusual state of the child was described: the child was brought to the hospital in the 5-th day of the disease with the symptoms of headache, weakness, abundant perspiration, the general state was very critical, there were present the signs of intoxications, convergent strabismus, horizontal nistagmus, tachycardia, Babinsky syndrome, tachypnoe, hepatomegaly +3-3-4, meningitis absent. Before 1-2 month the child was in an African country where after diagnosis of cerebral malaria was treated by a superficial drug Artesunate, which did not treat the disease and delayed it for 1,5-2 month. After different consultations and examinations the analysis proved the presence of Plasmodium falciparum (unique ring) positive. Treatment included administration of Mefloquine 250 mg, single dose, per os on 5th of October 2007. This first case of cerebral malaria wondered many specialists in Moldova country beginning from Ministry of Health till the nurse, which took care of the child. Most of the 1-3

million who die each year from malaria are children. In older children, malaria has a similar course as in adults. However, in children below the age of 5 years (as in our case), particularly infants, and the disease tends to be atypical and more severe. “Is malaria curable or not?” is yet a question, it can reverse, as it does in many cases. Anyway neurological defects may persist especially in children. such defects as: ataxia, speech difficulties and blindness. In some cases, secondary infections like pneumonia or urinary infections accompanied by fever can reverse it back. Most complications of P. falciparum develop gradually after days of illness. As cerebral malaria is fatal within days of infection if left untreated, immediate treatment is crucial. Because natural immunity to malaria is not fully understood and thus cannot yet be artificially imitated by drugs, control and prevention strategies are important. Cerebral malaria is the most common complication and cause of death in severe P. falciparum infection. In falciparum malaria, 10% of all admissions and 80% of deaths are due to the C.N.S. involvement. On the other hand, C.N.S. manifestations are fairly common in malaria and it could be due to not only severe P. falciparum infection, but also high-grade fever and antimalarial drugs. Therefore, it is extremely important to differentiate between these so as to avoid unnecessary anxiety and improper treatment.

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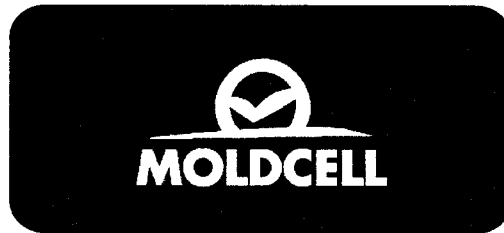
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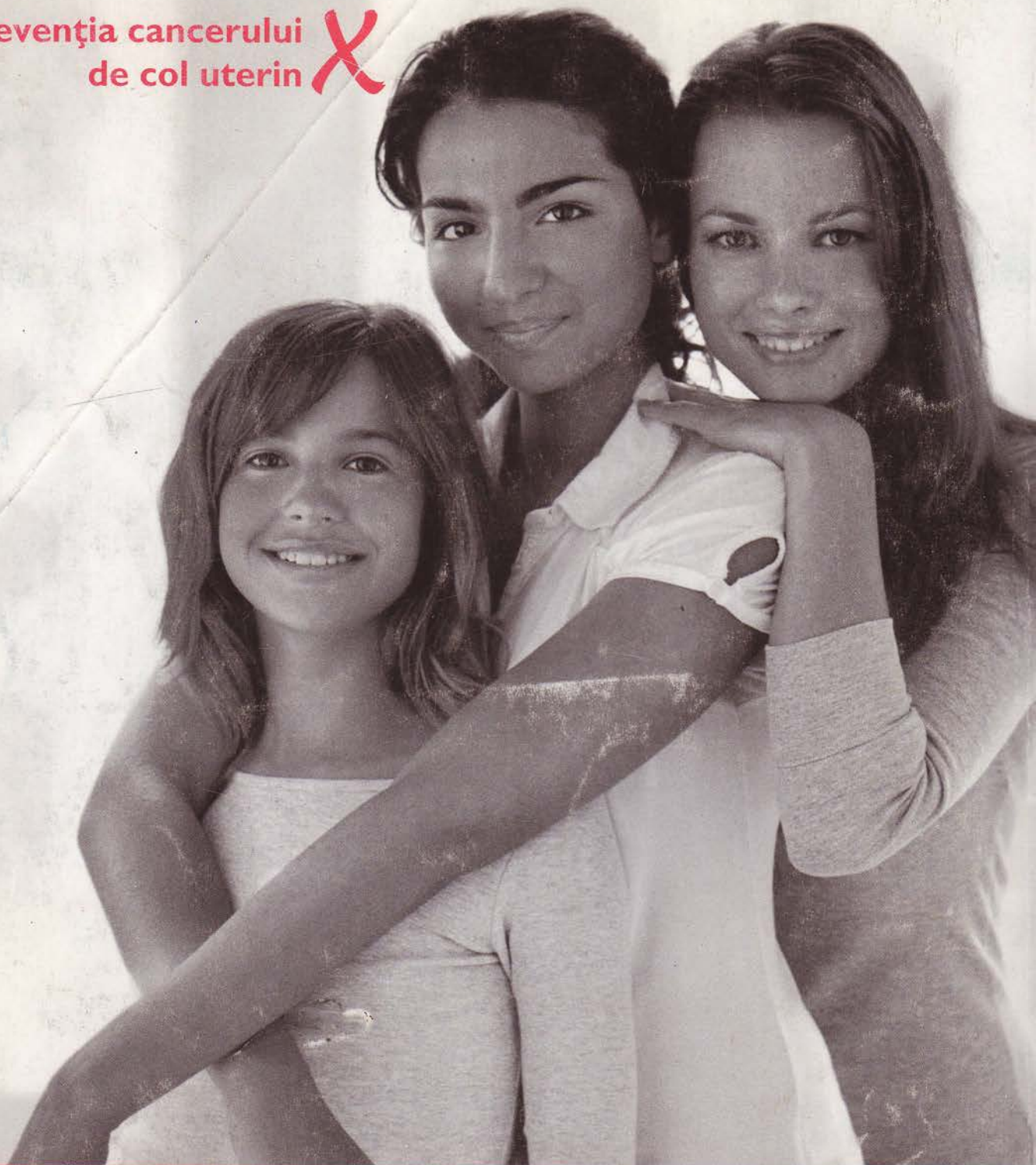
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