2nd EUROPEAN MEDICAL STUDENTS' SYMPOSIUM

VOLUME OF ABSTRACTS

MAY 4 - 5 1996

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INTERNATIONAL EXHIBITION CENTER HELEXPO (Pavilion 8)

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SCIENTIFIC ASSOCIATION OF GREEK MEDICAL STUDENTS (SAGMS)

2nd EUROPEAN MEDICAL STUDENTS' SYMPOSIUM

Under the Auspices of

The Patriarchate of Constantinople
The Metropolis of Thessaloniki
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The Aristotle University of Thessaloniki
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ABSTRACTS
OF
ANNOUNCEMENTS
AND
POSTERS

– 1 –

PROGNOSTIC FACTORS IN CHILDHOOD ACUTE LYMPHOBLASTIC LEUKAEMIA

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Acute lymphoblastic leukaemia consists about 75-80% of total leukaemia cases in childhood, and is the most frequent childhood cancer. It is a group of disorders which carries a prognosis that follows the eterogenity of the disease. Therefore a specific approach to therapy with emphasis on the assesment of risk remains the cornerstone for the induction of haematologic and clinical remission. Identification of prognostic factors will make it possible to predict treatment outcome and to identify the patients that require different therapeutic approaches.

Prognostic factors of major importance are the age of the patient at the time of diagnosis, the immunophenotype, the presence of cALL antigen, chromosomal number (ploid y) and chromosomal structure alterations, haematologic factors such as the WBC count, haematocrite, haemoglubin concentration and platelet count and the presence of anaemia. Clinical factors include the presence of central nervous system disease, the size of liver and spleen, the presence of lemphadenopathy or large mediastinal mass, the time needed for reduction and, finally, the duration of it. Ethnic differences may be an independent risk factor affecting the outcome of the disease

We examined differences and similarities between the various protocols in evaluating each of the above mentioned factors.

– 2 –

DIAGNOSTIC EFFICIENCY OF CRP TEST IN SEVERE NEONATAL BACTERIAL INFECTIONS

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Aim of the study was to determine diagnostic efficiency (DET) of CRP test based on repeated determination of C reactive protein (CRP) concentration in serum.

Material and methods. Two groups of neonates (nn) were formed. First consisted of nn with bacteriologicaly proven severe bacterial infections (SBI), and the second was a control group (CG) consisting of nn with suspected but not proven SBI. We determined CRP concentration using immunoturbidimetric quantitative method. The samples were taken within the first 12 hours after developing clinical symptoms of disease (CRP0) and in the next 12-24 hours (CRP1). DET is shown as ratio of sum of positive results (CRP>20 mg/l in the first group) and negative results (CRP<=20 mg/l in the CG) and total number of samples (in percentages).Chi square test has been used in testing the statistical significance of results.

Results. Out of 48 samples with proven SBI in 41 case CRP0 was over 20 mg/l, and out of 26 samples from CG in 17 CRP0<=20 mg/l (DET=78%). In 30 out of 31 samples with SBI CRP1>20 mg/l, and in 25 out of 26 samples in CG RP1<=20 mg/l (DET=96%). A highly statistically significant difference (χ^2 = 8,913 p<0,01) was found between the DET using CRP1 and DET when using CRP0.

Conclusion. Determination of CRP concentration in serum should be enlisted among standard early procedures in diagnostics of neonatal SBI. DET is significantly augmented with repeated samples collecting after 12-24 hours.

– 3 –

IMMUNOSUPRESSIVE THERAPY USING ANTI-THYMOCYTE GLOBULIN (ATG) FOR SEVERE APLASTIC ANEMIA IN CHILDREN

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Allogeneic bone marrow transplantation (BMT) is at this time the first-choice therapy in children suffering from severe aplastic anemia. Immunosupressive therapy became a good alternative in order to get the autologous bone marrow recovery in patients to whom BMT is not available.

We report two cases of severe aplastic anemia treated in Pediatric Clinic II, using ATG as immunosupressive therapy.

B.A., female 13 years, had a three months history of palor, epistaxis and petecchiae. She was transfusions-dependent since one month. The diagnosis was precised by bone marrow punction and biopsy. ATG (Limphoglobuline Merieux) was given in daily infusions for six days, combined with supportive intensive care. Clinical improvement was obtained, six weeks after therapy, and bone marrow has complitely regenerated in six months. The patient is healthy after a follow-up of twenty months.

P.C., female, 4 years, had a two years history of severe anemia, haemorrhagic episodes and infections. Six months after the onset of the symptoms she became transfusions-dependent The diagnosis of aplastic anemia was precised based on pancytopenia and severe hypoplastic bone marrow, by bone marrow aspiration and biopsy. ATG (Limphoglobuline Merieux) was administered in daily infusions for five days. Granulocyte colony-stimulating factor (Neupogen) was associated for fourteen days in order to prevent severe neutropenia. The supportive care needs were less than at the first patient. A partial response was obtained four weeks after therapy and she returned to transfusions three months later. The patient is alive six months after ATG, but severely pancytopenic.

We conclude that ATG is a true alternative to be considered in severe aplastic anemia in children.

– 4 –

URETROPELVIC JUNCTION OBSTRUCTION PERINATAL - DIAGNOSIS AND THERAPY

Authors: S. Sabetay, Chatziadamidou Thekla, M. Pavlos (students VIth year, The Faculty of Medicine Craiova, Romania).

Supervisor: Dr. C. Sabetay (Chief of Pediatric Surgery Clinic, Universitary Hospital No.1 Craiova, Romania)

Abstract:

A large number of prenatal diagnosis are met in the last few years mainly as a resed of frequent ultrasound examinations made during pregnancy. As they were not known in the previous years before the time of birth, the only moment of detection was the appearence of a hydronephrotic or insufficient kidney (kidneys) shortly after delivery, in the first months of life.

Our study underlines the importance of a prenatal screening for congenital hydronephrosis, the problem of salving the hydronephrosis in utero and also the association with other congenital malformations. As approximately 80% of the children diagnosed antenatally with congenital hydronephrosis spontaneonsly decrease their degree of renal insufficiency shortly after birth (even to a normal function), an important step after birth is a careful following of the child (ultrasound, radioisotopic, roentgenogram, UIV, CT, RMN).

The surgical methods (Anderson-Hynes, Culp-Deweerd, Scardino) are briefly reviewed.

– 5 –

THE ESSENTIAL OSSEOUS CYST IN CHILDREN- EXPERIENCE OVER A PERIOD OF 15 YEARS

Authors: Chatziadamidou Thekla, Malindretos Pavlos, Sabetay Sergiu (students, VIth year, The Faculty of Medicine Craiova, Romania)

Supervisor: dr.Corneliu Sabetay (Chief of Pediatric Surgery Clinic, Universitary Hospital No.1, Craiova, Romania)

Abstract:

65 cases of essential osseous cyst in children, registered in the Pediatric Surgery Clinic, Universitary Hospital No.1, Craiova, Romania, during a period of 15 years, are discussed in this work. The cases are studied upon age, sex, place of origin, localisation of the disease.

The surgical treatment (excision, curettage and bony replacement), frequently used before 1980, was replaced by a non-surgical method (intracystical injection of corticosteroids).

Upon the results obtained (the follow-up was made in all cases with X-ray and careful clinical observation) it must be underlined that the essential osseous cyst has its evolution mainly influenced by age, by the fact that the child is in his most rapidly growing period. Surgery was mainly used for the cases that couldn't be solved only with medical therapy, the most frequent localisations being the femur and the astragalus.

One of the most important complications is represented by fractures appearing on the affected bone, regarding them also upon the postoperative complications arising (angulations, shortening of the bone etc).

Conclusions: based on a 15 years experience, the surgical treatment for the essential osseous cyst remains only a second method, used after trying the corticotherapy or for extreme cases (difficult localisations)

– 6 –

CONGENITAL PES METATARSUS VARUS /PMV/ EARLY DIAGNOSES AND TREATMENT

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The purpose of the study was to evaluate the value of physical treatment of PMV, depending on the age of children at the moment of therapy initiation.

This deformity was diagnosed by clinical examination, values of the angles measured from the patients and foot X-ray scans. We followed up 136 children with congenital PMV, between 0 days and 12 month of age before and after physical tretment /1990-1995/.

All patients were treated with combined Thermoelectro-kinesitherapy and application of corrective east and orthosis. The best results were achieved in infants in whom physical therapy was initiated in the first month of life, where complete cure was achieved in 100% of the cases. If the treatement was initiated later, percantage of successfully cured significantely decreased, so we had only 13.64% of cured patients in the group over 12 months.

If deformity was diagnosed treated in the first months of life the results were successful because accelerated growth and great development potential for correction should be utilized to correct every foot deformity at that time.

– 7 –

PHARMACOLOGY OF SYMPATHETIC SYSTEM

Student: Irena Sergiej

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Department of Medical Informatics

of University Medical School of Warsaw

"Pharmacology of Sympathetic System "is a didactic program for medical students who begin to study pharmacology.

Program was created with use of HyperCard 2.2 for Power Macintosh computer during Tempus (Joint European Project Nr. 4272).

It is divided into two parts.

The first part provides necessery information about physiology of sympathetic system and introduces important medicines accordingly to their action on sympathetic receptors. The knowledge is presented in the logical and easy to remember form with use of graphic, animation, and text.

The second part enables to estimate gained knowledge, points out the lack and send to right answers.

The program is an alternative to conventional methods of education and should teach in an easier and more effective way.

– 8 –

THE COMPUTER CONSULTATION - A STUDENTS' ACCEPTED TOOL TO LEARN ANATOMY AND RADIOLOGY ?

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Purpose: Contemporary information technology is characterized by global networks, powerful personal computers and on-line data bases introducing a new dimension to the continuum of live long learning: electronic information access. Students' attitudes and practical experience with this change of educational environment was evaluated in a pilot study.

Material and Methods: A commercial anatomy teaching program (Animated Dissection of Anatomy in Medicine, A.D.A.M. Software Inc., Atlanta, GA, U.S.A.) was employed by 15 preclinical und clinical students in purpose to learn anatomy, radiology and to create electronic course ware. An anonymous questionaire with items such as program feasibility, efficacy, time economy and comprehensiveness was compared to textbooks.

Results: To date 35 questionaires covering 50 hours program application time (mean 87±60 min, range 15-360 min) point out comfort and fun to use the program individually or in a peer group. But also a lack of comprehensiveness and a restricted anatomic nomenclature is remarked. The preference between the computer program and textbooks is equivocal.

Conclusion: A survey of students' attitudes towards computer aided instruction prior to major capital expenditures is recommendable. Further results will be reported.

– 9 –

CREATION OF NEW GENERATION ELECTRONIC EDUCATIONAL AIDS FOR MEDICAL FIELDS.

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Menthor: Ass. R.V. Nasyrov, Can. Tech. Sci.
Ufa State University of Aircraft Technology.
Bashkir State University of Medicine.

Under modern conditions traditional aids of education are incapable of simple and visual representation of all the information which is necessary for proper training of highly qualified specialists. Existing electronic educational systems are characterized by overly specialized field of knowledge presented according to strictly set scenario with fairly simple tests or have demonstrative nature. They fail to provide educational material with graphic accompaniment.

The above-mentioned allows to conclude that it is important to make use of all the advantages of computers to creat educational systems of new generation.

The electronic educational manual "Oncology" being developed aims at needs of students and doctors. The new electronic manual for physicians must be a complex of programms consisting of three main components:

1. **Informative block** - the hypertext presentation of textual data. It will contain the history of oncology, information about general and particular oncology problems. All cases of tumors localizations, the newest classifications also will be included in the Informative block. Unical materials with comments of outstanding russian and foreign scientists - experimentators and oncologysts will be presented. All sections will be illustrated to provide more efficient understanding.
2. **Testing module** - the system for creating tests, checking up its correct, analysing test results and evaluating of students' training level for choose of adequate level of material presentation in the informative block. In addition, statistic of students consulting with different sections of the informative block lets to make assessments without open testing.
3. **Situational test module** - the most visual effective and interactive component. It is being designed for creating of virtual situations where students have to put the gained theoretical knowledge into practice.

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University Medical School of Warsaw
Department of Medical Informatics
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SECONDARY AMENORRHEA

Secondary amenorrhea is a didactic program for medical students and young doctors.

It was made during Tempus (Joint European Project Nr 4272) in Nancy (France) and in Warsaw (Poland).Program was created with use of Hypercard 2.2 and Power Macintosh computer.

Program describes the most important hormonal disorders: hyperprolactinemy, hyperandrogenism and oestrogen disorders. Elements of taking history, examination and laboratory investigation which approaches diagnose are underline and illustrated.

The program is alternate to conventional methods of education.

By using the program students can learn an algorithm that is helpful in solving problems in GP practice and review knowledge before taking exams

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DIFFERENTIAL DIAGNOSIS OF JAUNDICE

"Differential diagnosis of jaundice" is a didactic program addressed to final year medical students and to young doctors.

The program was made during Tempus (Joint European Project Nr. 4272) in Nancy and Warsaw in 1995. It was created with use of Hypercard 2.2 and Power Macintosh computer.

It consists of two parts.

The first part remains knowledge of anatomy, physiology and biochemistry of liver, and describes the following topics: Topography, Macroscopic and microscopic structure, Enterohepatic circulation of bile and bile acids, Liver secretion and gall bladder emptying, Chemical structure of bile acids, definition and pathogenesis of jaundice.

The second part presents the most frequent and serious types of jaundice: haemolytic, mechanical and hepatocellular and describes the following topics:

Medical history of a patient, Examination, Laboratory investigations, rtg, Aetiology.

The program contains many professional pictures, diagrams, schemes, etc. It should be more interesting and easier to understand than conventional medical handbooks.

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MEDICAL EDUCATION IN YUGOSLAVIA

Svetomir Dragićević, Tatjana Dragićević, Oliver Dulić
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aim: 1. to present medical education in Yugoslavia. 2. to compare systems of medical education in different countries. 3. to search for their essential underlying principles. 4. to discuss political and philosophical implications of the subject. 5. a review of possible effects on health care delivery in different countries.

method: The study is based on the comparison of a programs of medical education in Yugoslavia and other countries. More detailed evaluation was performed by computer analyses of principles.

result: There is only a small difference in main principles of education in Yugoslavia and other countries. Public education is depending of different programs with media support. Medical schools in Yugoslavia (in all levels from nurse to doctor) has very good quality. Quality of health care and equality (regional) are different.

conclusion: The main differences between medical education and health care in Yugoslavia and other countries are based on the economical context. The education is not so closely dependent on the financial possibilities, but it is rather a political question. Yugoslav system of medical education is inspire of all financial troubles one of very good in the world.

– 13 –

THE INFLUENCE OF MASS MEDIA ON THE STUDENT POPULATION

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The goal of this study was attemted to explore the influence of informations, presents through mass media on the student population and forming of their attetude towards the present situation in the world.
The formed sample consisted of 80(eighty) medical students aged between 19 to 24 years, who were asked to fill the same poll sheet with 10 questions concerning TV and radio broadcasts, as well as newspaper articles. The interview was during in a period of Nov. and Dec. 1995.
The results of this research show that only 14(17,5%) of them follow only information about politics, 30(37,5%) follow culture, music, film and sports, and 36(45%) follow all news in all media.
The answers about the possibility of manipulations through media show that 22(27,5%) students think that the media is objective, 50(62,5%) think that they are subjective and 8(10%) have no thought about that.
According to the results mentioned above conclusion would be that in 67,5% cases media has significant influence on forming the opinion of the student population.

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COMPUTER PROGRAM FOR TEACHING PROTHETICS

ADAM OKOŃ

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Before students of dentistry start working at prothetic laboratory, using various dental equipment, they have to get to know all the names of instruments and what are they used for. Following developed in our Department project of computer-assisted learning, we made a computer program - a hiper-text book which contains photographs of all commonly used dental equipment with descriptions of using them. Program was written in HTML (language commonly used on Internet) and can be operated on almost any computer containg mouse. There are two ways of operating our program. First, prefered by students at the start is clicking on the picture showing dental laboratory. Each element on the picture is linked to the new page, containing all the data about pointed equipment. Pages have links to other pages and so on. Second, more formal method of searching is using index of all the equipment described. It is essential finishing learning to know, if all the names are known and index is used for it. All the functions of program are available using mouse, without keyboard, what makes program very easy to use. Following observations have been made: 1. learning with our program is easy, even for students who operate computer for the first time 2. speed of teaching is very good - students know all the important data earlier then using conventional methods. 3. students like this kind of teaching very much and are ready to learn without any breaks. Computer assisted learning is a very good way to improve speed of teaching medicine. We recomend this kind of educational activity.

– 15 –

SOCIOLOGICAL ANALYSIS OF ALCOHOL CONSUMPTION AMONG STUDENTS

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Our aim was to assess the risk of alcoholism among students. The sample of 600 students was sufficient to obtain reliable results. Our questionnaire consisting of 17 questions was proposed to students and it allowed us to judge about the rate of alcohol usage among them, to establish motivation, tolerable dose, and age, they had been using alcohol since. All the obtained data have been summarized in tables which will be presented.

Analysis showed that 93% of students use alcohol to some degree and 47% use it regularly. Those drinking above 310 ml of vodka per week (21.4%) should be referred to the group of risk for only 14% of them are critical to their state. The mean tolerable dose was 7.5 g/kg of 40% alcohol and it proved to be significantly higher than the acceptable limit. A tendency towards the increase of alcohol consumption with every next year of studies was revealed. The degree of alcohol usage was significantly lower among peasants by birth.

Thus, measures to interest students to lead a healthy life should be undertaken.

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EPIDEMIOLOGICAL STATUS OF PATIENTS WITH FIRST DIAGNOSED SEROLOGIC HBV AND HCV MARKERS.

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The present study was aimed at evaluation of epidemiological findings in patients with first diagnosed HBsAg and anti-HCV characterizing epidemic, infectious as well as pathologic processes in human liver.

330 primary donors with first diagnosed HBsAg and anti-HCV. The majority of the patients comprised young men aged 20 to 40 (80.0 %). Most of the patients got infected through parenteral way (78.8%), while 8% were diagnosed to catch an infection through natural ways, i.e. 51.9 % comprised sexual intercourse, 11.1 % were attributed to everyday life causes and 37.0% were due to professional factors.

In 12% of patients no cause of infection was diagnosed. More than half of the patients under study were involved in manual labor and 10 per cent of the group were unemployed.

Clinical and laboratory examination revealed complaints only in 2.4 and 17 per cent of patients with HBsAg and anti-HCV, correspondingly, while hepatomegaly was present in 30% and 42.6%, elevation of alanine aminotranspherase rate in 25.8% and 58.1 % as well as sonogram changes in 30% and 42.6% of cases. Final HBV activity rate tests demonstrated the presence of liver infection process in every fifth patient under study. Final general clinical examination as well as morphologic and immunologic studies carried out during the course of the disease enabled us to diagnose primary chronic B hepatitis in 21.2% of subjects and C hepatitis in 26% of cases with first diagnosed HBsAg and anti-HCV.

Thus, high diagnostic rate of primary chronization of HBV and HCV-infection requires urgent measures aimed at detailed examination of said category of patients within the territory of the republic.

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MORTALITY FROM LIVER DISEASES

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To study the spread of chronic liver diseases (CLD) as a cause of death in various territories we have analysed the data of WHO World Health Statistics Reports, statistical data for Ukraine and med.death certificates of 15922 dead in Ternopil region of Ukraine in 1995. The incidence of deaths of CLD ranges from 1.2* (Iceland) to 44.2 (Hungary) (WHO 1987). In Ukraine it was 15.5 (1980-89), varying from 9.92 to 39.06 in regions. In Ternopil reg.it was 32.4 (42.3 among males, 24.13 among females) and ranged from 16.33 to 67.48 in districts (1995). CLD were the cause of death in 2.2% of males, in 1.3% of females, and in 1.7% of subjects of both sexes. Death rate from CLD in July was 2.5 fold higher than that in March. It differed significantly from seasonal changes of general mortality. We conclude therefore that mortality from CLD is characterized by large regional differences that are common for countries and for regions inside them (the larger regions are compared - the greater differences are seen). Hence deaths of CLD are caused by general and a number of specific factors which should be studied prospectively.

*Incidences are per 100,000 population.

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ALCOHOL INFLUENCING TRAFFIC ACCIDENTS IN CRETE

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To investigate the influence of alcohol on the frequency of traffic accidents in Crete, alcohol levels in blood samples from humans involved in those accidents were examined. The alcohol concentration was measured, the time of day, the time of the year, the age, the sex of the individuals involved and other parameters were noted, based on the records of our Department over the years 1990-94, and statistical analysis was perfomed.

The study reveals the distribution of the accidents over the days of the week and over the months (e.g. the analysis points out that most of the accidents occur on a Saturday and Sunday between May and September). It also shows the frequency of accidents on major holidays and determines the significance of alcohol concentration (alcohol was involved in 61.9% of accidents), time (most accidents occured between midnight and 5am with the highest rates between 3 and 4 am) and age (the 20-25 age group was involved in 25% of the accidents, this percentage being the highest for any group). A separate evaluation of the results was performed, which focused on the combination of different variables and additional information was made availiable, showing different distribution of alcohol related accidents in the week days for each month of the year. The geographical distribution over the four country regions of the island, according to accident frequency, alcohol involvement and age, is also presented.

Traffic accidents in Crete are related to alcohol abuse in a way that many of them could be prevented. The findings from this work could be used for taking decisions to eliminate them easily and effectively.

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RISK OF ATHEROSCLEROSIS AND PLASMA CONCENTRATIONS OF VITAMIN E AND CHOLESTROL

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Abstract: In the recent years, the rate of mortalities induced by cardiovascular diseases and specialy ''atherosclerosis'' has increased substantialy so that great concern haw arosen in the industrial communities and evevn third world populations. The relation between risk of'' atherosclerosis'' and plasma concentrations of ''vitamin E'' and cholestrol'' was studied in population of case-control consisting of 75 cases of ''atherosclerоses'' among patients complaining from chest pain which identified as angina pectoris and confined to bed in ''Baggiatallah Hospitall'' in Tehran and 150 controls selected from a sample of 750 men and women aged 30-65. A sample of their blood was taken and analysed by enzymatic and flouresence spectrophtometric methods. Being adjusted for risk factors such as age, sex, blood pressure, smoking habits and weight, results show that plasma concertrations of vitamin E was inversly related to the risk of'' atherosclerosis'' while plasma concentrations of cholestrol was directly related to the diseases ($p<0.05$); this relation was less significant in female cases aged 30-50. Blood pressure and smoking were confound factors. These findings suggest firstly that there is a possible relation between plasma concentrations of vitamin E and cholestrol and secondly some populations with coronary heart diseases, especiallyatherosclerosis may benefit from eating diets rich in edible antioxidants such as a vitamin E and its precousors.

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COMPREHENSIVE ANALYSIS OF CLINICAL AND HEMODYNAMIC PREDICTORS OF PROGNOSIS IN IDIOPATHIC DILATED CARDIOMYOPATHY

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Prognostic value of clinical and hemodynamic parameters in pts with idiopathic dilated cardiomyopathy (IDC) is still controversial and incompletely defined. To evaluate the role of these parameters in predicting long-term outcome, we prospectively followed 92 IDC pts (82.8% males, mean age 45.9±10.9 years, mean symptom duration 31.2±7.2 months). At the initial assessment all pts underwent comprehensive clinical work-up including heart catheterization with hemodynamic measurements and endomyocardial biopsy. The follow-up period was 12-60 months (mean 36), considering cardiac death or heart transplantation as end-points of the study. Fifty-seven pts died (43.2%) and one was transplanted. Twenty clinical and 14 hemodynamic parameters were analyzed and those found to be significantly different between survivors and non-survivors are shown in the table bellow ($p<0.01$):

	Survivors	Non-survivors
NYHA class I	23 (30.7%)	5 (8.8%)
NYHA class IV	13 (17.3%)	22 (38.6%)
Intraventr.conduct.defects	20 (26.6%)	30 (52.6%)
Cardiomegaly on X-ray	50 (66.6%)	49 (85.9%)
Right atrial pressure (mmHg)	6.9±1.4	8.5±1.2
Pulmonary wedge pressure (mmHg)	18.4±9.3	23.5±7.3
LV endiastolic pressure (mmHg)	22.3±1.8	26.5±3.9
LV ejection fraction (%)	32.7±3.4	27.1±3.9

Based on univariate statistical analysis PAP, PCWP, LVEDP, and LVEF were demonstrated to be independent prognostic parameters for long-term survival in IDC. Furthermore, multivariate analysis revealed low LVEF and increased PCWP as significant prognostic markers.

In conclusion, the survival analysis of numerous clinical and hemodynamic parameters in IDC pts indicated that PAP, PCWP, LVEDP, and LVEF were associated with increased mortality. Multivariate analysis revealed low LVEF and increased PCWP as the most reliable long-term survival predictors.

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A CORRELATION BETWEEN DYNAMIC ST - DEFLECTION AND VENTRICULAR ECTOPIC ACTIVITY IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION.

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This study was designed to determine the relationship between the registered episodes of dynamic ST-changes and ventricular premature activity (VPA) in patients with AMI as well as to work out a complex algorithm for prognostic assessment of these patients.

62 patients with AMI, with an average age of 56,8 years were studied. A Holter ECG was performed to each of them. They were identically treated. In 21 (33,8%) of the cases episodes of ST-changes were registered. In 17(80,9%) of these with ST-deflection, VPA was detected. 41(66,2%) of the patients are without episodes of ST-deflection. Only in 4(9,7%) cases of this group VPA was found.

Generally 21 of the cases were with VPA and 17(80,9%) of them had ST-changes.

Overall, it may be concluded that there is a statistically true correlation between the present dynamic ST-deflection and the appearance of VPA. That is why the total prognosis of these patients can be made only after a complex assessment.

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INCOMPLETELY CLOSED FORAMEN OVALE IN ADULTS - - A POTENTIAL ENTRANCE TO THE LEFT ATRIUM

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Standard methods of the interventional cardiology and invasive radiology require reaching the left atrium e.g. for electrophysiologic tests or ablation of conducting tissue. From the developmental point of view, there are valid credentials to look for the potential canal from the right to left atrium through so called *patent probe defect*, it means, incomplete closure of the foramen ovale (ICFO). To describe this canal we studied 72 human hearts (aged 15-76 years), where no acquired and/or congenital defects of the heart were observed. All the specimens were obtained from the routine autopsies after traffic accidents, homicides or suicides. In 24 cases (33.3%; male 18 cases, female 6 cases) of the observed hearts the ICFO was found. The location of the ICFO was determined as an anterosuperior, anterior or anteroinferior segment of the oval fossa (OF). The measurements of the ICFO were performed in right and left atrium using vertical caliper. The most common position of the ICFO (12 cases) was the anterior segment of the OF, where the diameter of the ICFO varied 1-13 mm (avg. 7.5±4.0 mm) from the right, and 2-17 mm (avg. 8.4±4.2 mm) from the left. In the anteroinferior segment of the OF, 10 cases of the ICFO were found. Their diameter balanced between 1 mm and 7 mm (avg. 3.7±1.8 mm) on the right, and 1.5-14 mm (avg. 5.45±3.9 mm) on the left. Only in 3 cases we found ICFO in the anterosuperior segment of the OF (right 4-11 mm, avg. 6.8±3.7 mm; left 5.5-11 mm, avg. 9.2±3.2 mm). We noticed, that the diameter of the ICFO is bigger on the left side (avg. 7.32±4.1 mm) than on the right side (avg. 5.9±3.6 mm).

Basing on the fact that in over one third of the hearts observed ICFO was present and that the diameter of the ICFO is relatively big, the conclusion that introducing of the catheter from the right to left atrium may be justified. It is clear, that the venous access is less traumatic and safer, what, in our opinion, implicates the clinical importance of the study we performed.

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SELECTIVE RADIOFREQUENCY CATHETER ABLATION IN A REFRACTORY CHRONIC ATRIAL FLUTTER, LONG-TERM AFTER SURGICAL REPAIR FOR CONGENITAL HEART DISEASE

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Atrial flutter is common after surgical repair of congenital cardiac malformations. In patients with residual lesions or when arrhythmia has been long lasting, chronic or refractory form may occur. Refractory atrial flutter was defined as the failure of more than two cardioversions or intracavitary pacing and more than two antiarrhythmic drugs to maintain sinus rhythm. In this cases catheter ablation may be considered.

Electrophysiological point of view, the Koch's triangle, delineated in lower right atrial septum by the tricuspid valve and coronary sinus appears to be the "Achilles' heel" of common atrial flutter and AV nodal reentrant tachycardias. Recent clinical and experimental data suggest that because of this common shared pathway, both these arrhythmias can be ablated at the same site.

This selective approach was performed in a young man, 31 years old, 8 years after surgical repair for ostium primum defect, with chronic, refractory type 1 atrial flutter, relapsing both after repeated cardioversion and intracavitary cardiac pacing, in spite of associated antiarrhythmic drugs, including amiodarone.

Radiofrequency current, at 500 KHz, 30W was transcatheter delivered for 20 and 30 seconds, after the pacing transient entrainment criteria was fulfilled, under fluoroscopic guidance. Suddenly cessation of arrhythmia and transition to sinus rhythm was obtain. No arrhythmias were inducible by classical electrophysiological protocol, including 3 programmed extrastimuli, 30 and 60 minutes after the ablation.

During a follow-up period of 8 months, the patient remained in normal sinus rhythm, after the initial procedure, without antiarrhythmic drugs. This case report supports that selective catheter ablation by anatomic approach is highly successful in terminating type 1 atrial flutter and has a good long-term result, even in patients with associated congenital heart disease.

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INTRAVENOUS SOTALOL VERSUS PROPAFENONE FOR CONVERSION OF RECENT ATRIAL FIBRILLATION (RAF). CLINICAL COMPLICATIONS AND SIDE EFFECTS.

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The aim of this study was to assess the safety and possible adverse effects of Sotalol and Propafenone used for termination of RAF.

29 Patients (mean age 46,8 years) with RAF were divided into two groups: Sotalol-treated group and Propafenone-treated group. Intravenous Sotalol was administered at maximum dose 160mg/24h. while for Propafenone, maximum dose was 560mg/24h. Meanwhile Holter ECG recording was performed to all of them, with analysis of P-Q, QRS and Q-T changes (to those with reversion to sinus rhythm), appearance of any rhythm or conductive disorders. Different clinical signs were registered as well.

Conversion to sinus rhythm was achieved in 9 patients (64%) under Sotalol and 11 patients (73%) under Propafenone. Several, but not of such importance adverse effects were equally distributed between the two therapies, without any significant proarrhythmic effect. So the results of this study prove the safety and efficacy of our therapeutic approach.

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MORPHOLOGIC INVESTIGATION ON THE VARIATIONS OF THE VALVE OF THE CORONARY SINUS (THEBESIAN VALVE)

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Due to the fast progress in the cardiac surgery and invasive cardiology, the valve of the coronary sinus (Thebesian valve - TV) became clinically important. However, it was not clear up to now, what was the morphology of the TV in Polish population. The aim of our study was to estimate the morphology of the TV basing on 131 human not fixed hearts, aged form 19 to 86 years (avg. 46.5), obtained from the routine *post mortem* examinations performed at the Warsaw Medical School for 11 (from 49) administrative districts of Poland. Due to the morphology five different types of the TV were distinguished.

The following results go from our study: **1)** TV was absent in 23 cases (17.55%); **2)** the most common type of the TV was type I, when the valve is formed as a simple not fenestrated semicircular fold of endocardium (68 cases/51.9%); **3)** TV with several fenestrations (type III) was observed in 20 cases (15.27%); **4)** two other types (not fenestrated TV with cords running from the free rim of the TV to the borders of the OCS [II] or cords crossing the OCS in different directions [IV]) occurred in 16 cases (12.21%); **5)** most commonly the AI ranged from 10% to 50% in 64 cases (65.13%), where 76.56% of these cases was the type I.

Concluding we want to underline that the fact that TV occurs in 82.44%, implicates its clinical importance. According to other studies (Lam, 1995 - personal communication) it is to emphasize that TV may be visible in the teansoesophageal echocardiography. However, the question is how exactly TV is formed, because it is impossible to determine whether it is fenestrated or not basing on the echocardiographic image. The study we have undertaken might help to foresee the most probable situation.

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THE INTERRELATION BETWEEN THE ECOLOGICAL SITUATION AND THE PATOLOGY OF THE DIGESTIVE ORGANS

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We investigated quantity dependence of the wide enumeration of the diseases of the digestive organs of the pollution of the xenobiotics of the atmospheric air (X1-the summary of the waste throw of gases into the atmosphere , X2-hard substances , X3-carbon monoxide substances as a whole , X4-sulpherous gas , X5-hydrocarbon) of the agroindustrial region.

We used a correlational - regressional analysis . We determened that the intensive index of the diseases of the digestive organs , describes the equation of regression.

For the adult population:

$Y= 32.529-11.523\ X1-3.159\ X2+11.55\ X3-3.950\ X4+17.343\ X5$

For the children population:

$Y= 36.299-6.391\ X1-3.448\ X2+8.706\ X3-1.015\ X4+17.819\ X5$

The findings give evidence that between the learnes factor , is mostly influenced by the levels of diseases of the digestive organs of the adult and infant populations is given by atmospheric pollution by sulpherous gases and hydrocarbons.

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HELICOBACTER PYLORI AND STOMACH DISORDERS

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ABSTRACT:
Today Helicobacter pylori is accepted as a cause of gastritis and ulcer.
Our study included 117 patients which have been exposed to endoscopy because of epigastric disturbances. We did pathohistological examination by Wardhin-Starry method and microbiological examination (direct microscopy and cultivation).
Helicobacter pylori was proved in stomach ulcer (84,37%), duodenal ulcer (87,09%), polipus ventriculi (75%) and tumor ventriculi (87,50%).
In correlation with pathohistological diagnosis we found Helicobacter pylori in I degree gastritis (72,72%), II degree gastritis (76,81%) and III degree gastritis (69,23%).
Findings of Helicobacter pylori was more expressed in antrum ventriculi (78,30%) then in corpus (61,95%).

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Prevalence and significance of HLA-DR antigens in Caucasian patients with chronic HCV infection

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Host immune response to HCV, which is dependent on the presentation of the processed viral peptides by the HLA class II molecules has been documented in chronic HCV infection. Different HLA-DR alleles may be associated with different susceptibility to HCV.

We therefore correlated the prevalence of HLA-DR B alleles with histological activity, HCV genotype, response to IFN and route of transmission in 99 HCV infected patients. 99 HCV RNA positive Caucasians (35 female, 64 male, age range: 18-71 y. o.) with serologically and histologically proven hepatitis C were assessed prospectively. Response was defined as normalisation of AST/ALT and loss of HCV RNA. Non-response was postulated in the presence of HCV RNA and/or elevated AST/ALT. HCV RNA was detected by PCR with nested primers. The 13 HLA-DR antigens and HCV genotypes were determined by PCR with a line probe assay (Inno Lipa and Inno Lipa HLA, Innogenetics, Zwijndrecht, Belgium). 2045 Caucasian healthy blood donors (1104 female, 941 male, age range: 18-65 y. o.) were typed in a similar fashion. For statistical evaluation a two-tailed exact Fisher-test was used.

Comparing healthy blood volunteers with HCV infected people, we noted a preponderance of HLA-DR B13 ($p < 0.04$) and HLA-DR 14 ($p < 0.035$) among HCV infected patients. HCV induced liver cirrhosis as well as the HCV genotype I were associated with HLA-DR B7 antigen ($p < 0.04$). 68/99 patients were treated with 3 x 3 MU or 3 x 6 MU IFN/week for at least 3 months. 27/68 (39%) treated patients were complete responders, 39/68 (57%) non-responders. Follow-up period was only 2-3 months after cessation of therapy. We could not find any correlation between HLA-DR B7 and non-response. There was also no correlation between any HLA-DR allele and route of transmission.

HLA-DR B13 and B14 positive individuals seem to be more prone to get chronically infected with HCV infection than other haplotypes. HLA-DR B7 is associated with the subtype I and with a more severe histological outcome. However, the presence of a certain HLA-DR allele has no prognostic value concerning response to IFN treatment.

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CLINICAL MANIFESTATION, CONTEMPORARY DIAGNOSTICS AND THERAPY OF HEPATITIS C VIRAL INFECTION

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Aim. Basic intention of this work is to point to clinical manifestation HCV infection contemporary diagnostics and possibility of treatment.
Methods of material. Since acute hepatitis C is often asymptomatic and anicteric, acute HCV infection diagnosis is rarely established, so in this work thirty patients are processed with chronic HCV infection. It was processed a few parameters: clinical symptoms and signs, information of epidemiology, physical findings - especially checkup of liver and spleen, biochemical analysis, immunoglobulins, autoantibodies, ultrasound changes of liver and spleen, HCV markers and liver-biopsy findings.
Results. This research showed that at 16 of 30 patients, more then a half of them, there are no symptoms and signs so illness is asymptomatic; while the rest of the patients have no specific symptoms and signs (weakness, fatigue, dull pain under the right rib's arch etc.). Information of epidemiology are confirming blood transfusion and intravenous drug addiction as way of transmission HCV infection, as possibility of sexually contact, but however at many patients the way of transmission remains a mystery. Physical check-up and ultrasound showed hepatomegaly at a half of our patients. It's important to emphasize that 53.5% of patients have normal level AST, and 30% of them ALT.
Final conclusion. Although acute hepatitis type C is often anicteric and asymptomatic, it may progress to chronicity in a significant percentage of patients. One shouldn't forget that acute hepatitis type C can develop in cirrhosis of the liver and hepatocellular carcinoma. The course of disease is progressive, so early discovering is important and treatment with recombinative interferon.

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CELLULAR IMMUNE RESPONSE IN PATIENTS WITH ALCOHOL LIVER CIRRHOSIS

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Presence of immune response in patients with chronic liver diseases is well known while peculiarities of cellular immunity rate in patients with chronic cirrhosis depending on degree of compensation rate of pathological process in liver is not sufficiently advanced.
We studied 29 patients with alcohol induced liver cirrhosis aged 30 to 50. In 7 patients subcompensated liver cirrhosis was diagnosed in the course of exacerbation of the disease on admission to the hospital (Group 1); Group 2 comprised 17 patients with decompensated cirrhosis without encephalopathy signs.
5 patients suffering from decompensated liver cirrhosis with portal systemic encephalopathy were included into Group 3. Diagnosis of cirrhosis as well as its compensation rate evaluation were made based on morphological, biochemical and instrumental studies. Changes in cellular immunity link were valued based on total lymphocyte, T-lymphocyte and their populations count (i.e. active, suppressers and helpers), as well the rate of phagocytic macrophages and general compensatory activity rate. Immunogram findings of 23 healthy subjects served as control.
Comparative study revealed no differences in content of T-lymphocytes (E-POK) and active cells in groups under study (P>0.05). Some differences were marked in T-suppressers content , the number of which was progressively increasing along with course of decompensation. The minimal rate was noted in patients of Group 3 (P<0.05). Changes in suppressers content also resulted in changes of T-helpers/T-suppressers coefficient, which, in spite of stable helper cells count in all study groups (P>0.05), tended to be lower in Group 2 as compared to Group 1 (P<0.05) and even lower in Group 3 (P<0.05).Disturbances in lymphocyte populations were accompanied by decrease of macrophages phagocytic activity rate, that was most vivid in patients of Group 3 (P<0.05). General complementary activity in groups under study was similar while its index happened to considerably elevate by the time of discharge from the hospital as compared to the initial findings. This tendency was not observed as of the rest of the findings under study.
Thus, the revealed changes in cellular immunity link demonstrated dependence of distortions in immunity response upon the liver cirrhosis decompensation rate. This requires differential approach in administration of immunocorrective therapy in patients with liver cirrhosis.

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INFLAMATORY COMPLICATIONS AFTER SECTIO CAESAREA CAUSES AND PREVENTION

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BACKGROUND: Sectio Caesarea (S.C.) as a surgical intervention represents an operation with a very high risk factor, whose cause in the first place is infection. The infection after the S.C. is polymicrobic, fom anaerobic and aeorbic bacteria
PURPOSE&RESULTS: The goal of the exercise was to determine the most frequent symptoms of infection and complications after S.C. The research was done in the period 1994 to 1995, out of 13,771 births 1,015 were done by S.C. The largest number of S.C. (60%) were done with a burst velamenta. The most profound cause of infection is the Escheria Coli which is found in the vagina, cervix and in the operational vulneral. From 1,015 S.C. in 327 (32.2%) there were inflammatory complications from which 194 (59.3%) were manifested in women with a burst velamenta, while only 75 (22.7%) occured in women with an elective S.C. The most severe complications that emanated were: Endometritis, inflammation of the operational vulneral and urinal infections.
CONCLUSION: Analysis of the discovered bacterial flora point to a frequent similarity of bacteria in the vagina, cervix and in the operational vulneral, this points out that the infections after S.C. were from infections of the above mentioned which existed during pregnancy. Because of this it is important to cure the bacterial infections with antibiotics to prevent the development and the spreading of the inflammation.

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COMPARISON OF TRANSCERVICAL AND TRANSABDOMINAL.CHORIONIC VILLI SAMPLING PROCEDURES

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The transcervical chorionic villus sampling method was compared with the transabdominal route. According to the procedure patients were divided into two groups: transcervical CVS group with 45 cases and transabdominal CVS group with 105 cases.

Examination of epidemiological variables showed the two procedure groups to be comparable at enfolment. No difference was noted between the maternal age, gestation age at sampling, and placentallocalisation in these two groups. By a priori ultrasound scanning, more transcervical than transabdominal procedures ($p < 0.01$) were considered to be inaccessible for sampling.

The percentage of small samples was greater in transcervical group (9% versus 2%). In addition immediate complications (bleeding, amniotic fluid leaking) and post-procedure loss were significantly higher in transcervical than transabdominal CVS group. (4.3% versus 0.7 %).

Given the results of our study, transabdominal procedures remain the first choice for prenatal diagnosis in early pregnancy.

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ULTRASONOGRAPHY AND ENDOCRINOLOGICAL CHANGES IN POLYCYSTIC OVARIAN SYNDROME

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To investigate relationship between the ovarian structures and endocrinologycal pattern in polycystic ovarian syndrome (PCOS), 11 women affected by PCOS were studied. On the basis of ultrasonographic classification they were divided in two groups: peripheral cystic pattern (PCP) group and general cystic pattern (GCP) group. Pelvic ultrasound examination was performed by same investigator (NR) using Simens SL - 1 machine with transvaginal probe 5 MHz.

In the PCP (6 patients), small cysts were aligned in the subcapsular region of the ovary, while in the GCP (5 patients) the cysts occupy the entire parenchyma of the ovary.

On all patients lutreinizing hormone (LH), and foliclestimulating hormone (FSH) were measured by conventional radioimmunoassays. Blood was drawn on the same day as the initial ultrasound examination. Mean LH/FSH ratio in GCP group was 2.3 +/- 1.0 while in PCP was 1.0 +/-0.3.

The ratio of LH to FSH was significantly higher in the PCP than GCP suggesting that this two morphological pattern of PCO differ and endocrinologicaly

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PROPHYLAXIS OF POSTOPERATIVE INFLAMMATORY COMPLICATIONS

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60-70% of all gynecological patients have inflammatory diseases. In 82-86% of these patients inflammation is localized in the adnexa of the uterus. In the majority of cases purulent adnexitis demands surgical operation. We used low energy laser therapy on one group of women who had undergone surgery for adnexitis; this group consisted of 34 patients. A control group, consisting of 32 patients, received only ordinary treatment. Laser therapy was used on the region of the postoperative wound, daily for 7-10 days; the duration of the procedure was 10-15 min. We investigated the blood of these women. After the operation, in the patients of both groups we discovered a rise in the quantity of leukocytes and the appearance of immunodeficiency; a decrease of the quantity of T-lymphocytes (especially T-helpers), IgG, and IgM. After the laser therapy in patients from the first group, we noticed a faster improvement in the indices of immunity: T-lymphocytes (especially T-helpers), IgG, and IgM. We reached the conclusion that the use of laser therapy on patients who have had surgery for purulent adnexitis is an effective complement of ordinary treatment for prophylaxis of postoperative inflammatory complications.

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THE IMPORTANCE OF MEASURING HCG CONCENTRATION IN BLOOD FOR DIAGNOSING ECTOPIC PREGNANCY

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The aim of the study was to examine the diagnostic value of beta HCG in blood, and to observe the dynamics of secretion, for confirmation of diagnosis of ectopic pregnancy in a group of patients that were suspected of ectopical pregnancy, which was determined by transvaginal ultrasound.

The control group consisted of 50 pregnant women with regular pregnancies and 30 pregnant women who were examined with ultrasound and presumed to have non-uteral pregnancies. HCG is derived from the blood of the women by Amerlite HCG-60 Assay.

Patients with ectopic pregnancies had significantly lower HCG values in blood according to the control group.

Using transvaginal ultrasound and determining HCG in blood of patients increase the Dg value of these non-invasive methods in detection of ectopic gestation.

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THE CO_2 LASER THERAPY AS THE METHOD OF CHOICE IN TREATING YOUNG WOMEN WITH CIN LESIONS

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The discontinuance of radical treatment in CIN cases for several years now is of particular importance for young women who are still in the reproductive age. Alternative management has been possible, on the one hand thanks to the introduction and wide application of colposcopic diagnosis and, on the other, new therapeutic techniques. Though offering the possibility of less radical procedures, these new techniques also create a danger of less efficacious treatment. This applies in particular to the use of the so-termed destructive techniques (coagulation, cryotherapy, laser) which do not yield histological material for further verivication.

The aim of the studies was to attempt to investigate the results of treating young women with CIN I - III of the cervix by means of the laser technique (vaporization).

As a result of mass cytological screening carried out in Białystok Province in the 1993 - 1995, of the 252 630 women over 20 years of age, cervical lesions were detected and qualified for treatment in 2 046 women of whom 216 of the lesion were of a CIN character. Of this number, 164 young women (18 - 34 years) who wished to retain child-bearing capacity, were treated exclusively with a CO_2 laser in the clinical reference center (laser clinic). The final diagnosis was very precisely made before treatment by means of a target tissue biopsy.

In order to ensure that the pretreatment biopsy reflect the true state of the tissues, both the standard and the extended colposcopy methods including fluorescent techniques were applied. The precise determination of the degree of progress of the lesions and their topography is of great significance for the efficacy of the treatment. In the group of 164 women, a very high efficacy of treatment was achieved, approximately 98,9%, while preserving the anatomical conditions of the uterine cervix.

The application of CO_2 laser for destructive treatment of cervical lesions in young women makes it possible to achieve a greater efficacy (95,6%) than that achieved of other destructive techniques.

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HAEMODYNAMIC AND NEUROENDOCRINE STRESS RESPONSES TO CESAREAN DELIVERY IN WOMEN WITH PREECKLAMPSIA UNDER GENERAL OR EPIDURAL ANESTHESIA

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We compared the effects of lumbar epidural and general anesthesia on the hemodynamic end neuroendocrine stress response to cesarean delivery in 20 women with preeclampsia. In the epidural group (n=10) anesthesia extending to the T4-dermotome level was obtained using 0,5% Morcain 75 mg and 0,075 mg fentanyl.
In the general anesthesia group (n=10) anesthesia was induced after pretreatment with dihydralazine. In the epidural group, mean arterial pressure (MAP) decreased from 133,5mmHg to 119 mmHg ($p<0,002$). After pretreatment with dihydralazne MAP in general group decreased from 131,5 mmHg to 112,2mmHg ($p<0,001$).
At skin incision (after tracheal intubation) MAP increased from 112,2mmHg to 133mmHg ($p<0,001$) however this was not significantly different from baseline MAP. In the epidural group there were no further changes in MAP. The difference in MAP at skin incision and postpartum period between the two groups was significant ($p>0,004$ and $p<0,009$). In the general anesthesia group β-endorphin increased significantly from base levels at skin incision. In the epidural group the concentrations of β-endorphin decreased or remained unchanged.
Cortisol concentrations in the postpartum period were significantly higher in both groups.
We conclude that epidural anesthesia extending to the T4 dermotome caused blunding of the hemodynamic and neuroendocrine stress responses to cesarean delivery in women with preeclampsia.

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CROHN´S DISEASE OF THE APPENDIX AND OF THE ILEOCECAL SEGMENT. CASE REPORT

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ABSTRACT:
Male, 21-year old, with clinical presentation that of periappendicular abscess had appendectomy. Fistulisation induced second operation, 28 days latter.
Histological finding of the appendix and of the ileocecal segment was identical: panmural inflamatory infiltrate with prominence of limphoid agregates, mucosal fissures, crypt abscesses, sarcoid like epithelial granulomas, neural hyperplasia and lymphangiectasia.
We concludet that so-called Crohn´s disease of the appendix, associated with the same disease of the ileocecal segment is related nosologically to Crohn´s disease proper.

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MUCIN HISTOCHEMISTRY OF THE MUCOSA BORDERING COLORECTAL CARCINOMA

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On transitional mucosa (TM), the lesion bordering colorectal carcinoma, there are a few reported data. Because of that our aim is to study the characteristics of mucosa bordering colorectal carcinoma..

The mucosa bordering colorectal carcinoma, from 30 operated patients, was fixed in 10% formaldehyde solutions. On paraffine sections the specific mucionohistochemical and classic histological methods were used (PAS, HID-AB, pH=2,5 and HE).

TM was found in 91,6% studied patients. Its characteristics are: the mucosa is taller than normal, lined by branched crypts, the consistent cells of which are in turn taller and more crowded than normal. The goblet cells differ from those of the normal colorectum in secreting (AB positive) mainly sialomucins.

The authors conclude that TM may be important signal of a potentially carcinogenic environment.

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CHARACTERISTICS OF THE CELLULAR PHOSPHATE GOLGI IMPREGNATIONS

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Characteristics of the cell impregnations, produced with a newly developed phosphate Golgi method (PGM), were studied at the light microscopy level, using thin cryo or paraffine sections of the aldehyde fixed rat forebrain slices. The procedure resulted in numerous Golgi impregnations of the (sub)cortical principal neurons (e.g.the pyramidal ones) and glial cells (e.g. the astrocytes). Concerning neurons, the technique stained dendrites (including dendritic spines), perikarya and nonmyelinated axon portions. Among glial cells, protoplasmic astrocytes yielded the best impregnations. Moreover, besides the solitary appearing cell impregnations, frequent clustered neuron impregnations were found in the cerebral cortex, hippocampus, striatum and forebrain nuclei. The findings pointed to the PGM applicability in nervous tissue studies.

Phosphate Golgi impregnations, Neuronal cells, Glial cells.

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THE PATHOMORPHOLOGY OF ACRYLATES EXPOSURE

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Aim The ethers of the Acrylic and the Methacrylic acids belong to the widely used group of industrial chemicals, but some aspects of their toxicity are still unknown. The present work has been made in order to obtain more information about the Acrylates induced pathomorphological changes at the subacute exposure.

Materials and methods White mongrel rats (male), which were treated intraperitoneally with Butylacrylate (BA) and Metylmetacrylate (MMA) in 1/4 LD 50 once a week during four weeks. Histological preparation, cytomorphometrical and histochemical analysis have been performed by standart methods.

Results The subacute exposure to BA and MMA causes the complex of cytological and histochemical changes in some tissues. The liver, central neurous system and lymphatic organs are seem to be the primary targets for BA as well as MMA action. Acrylates induced cytomorphological damages progress within the full period of their exposure and have not any correlation with the chemical and physical properties of these substanses. However, the peculiarities of Acrylates metabolism affect the distribution of toxic effects in the case of subcellular enzymatic activity assessment. Also the membranotoxicity and proteotoxicity of Acrylates were observed.

Conclusion BA and MMA being used for a prolonged time induce marked pathomorphological changes in the hepar, brain, blood and bone marrow cells. The toxic potential of these chemicals is connected with their toxicokynetical parameters. The data obtained might be usefull for the evaluation of toxicity rank of these chemicals as well as for the pathogenetically based creation of preventive methods.

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INTEGRATED HYPOTHALAMUS REACTIONS IN THE PSYCHOEMOTIONAL TENSION IN RATS.

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A leading role of hypothalamus in stress reaction development was pointed out by H.Selye and L.Levi in their works. However, the number of investigations, devoted to the morphological research of this field in stress is not sufficient, and they mainly concern morphological and functional changes in the supraoptical and paraventricular nuclei.

Methods: In our investigation the repeated immobilization of animals in the special small boxes used as a stress factor. All nucleus formations (in complaince with Szentagothai's classification) were morphologically evaluated.

Results: The early terms of stress reaction (7-14-th day) were characterized by increased morphological and functional activity of all nucleus formations and hypothalamic fields. On the 30-th day the dystrophic changes in the paraventricular, supraoptical and dorsomedial nuclei were discovered. In the premammilar area the increased morphological and functional activity of neuronal modules was registered.

Conclusions: On the 20-th day of experiment the compensatory and adaptive changes were pronounced namely: hypertrophy of neurosecretory cells and the increase of their various cytoplasm enzymes, DNA and RNA discovered in all the structures except the supraoptical, paraventricular, dorsomedial nuclei in the anterior and posterior hypothalamic areas.

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THE CALCITONIN CHANGES DIFFERENT ENZYME ACTIVITIES OF EXOCRINE PANCREAS OF GOLD HAMSTERS

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Experiments were performed in order to determine the effects of calcitonin (CT) on monoaminooxydase (MAO), Na^+K^+ATPase, acetylcholinesterase (AChE) and butirylcholinesterase (BChE) activity of exocrine pancreas of the gold hamsters.

We used experimental protocol of Glenner et al. for determination of MAO activity, a modification of original Farquar et Palade technique for Na^+K^+ATPase activity and the method of Karnowsky and Roots for AChE and BChE activity.

Experimental groups (17 experiments) had 4 animals, 2 experimental and 2 controls. Experimental animals were treated with calcitonin (CT) in doses of 8MRC units / 100g body weight two times for 30 minutes. Control animals were treated with 1 ml 0,85% NaCl. Animals were killed 30 minutes after second injection.

Result of experiments showed supresion of MAO activity, and Na^+K^+ATPase activity and elevation of AChE and BChE activity on membrane of the pancreatic acinar cells of gold hamsters treated with cacitonin (CT) in related to controls

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NUCLEAR VOLUME OF TYPE I GASTRIC INTESTINAL METAPLASIA

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Metaplasia is a reversible change in which one adult cell type is replaced by another adult cell type. It has been postulated that intestinal metaplasia characterized by incomplete differentiation and by sulphomucin secretion (type III intestinal metaplasia) is closely related to intestinal type gastric carcinoma, whereas other non-sulphomucin-secreting types (types I and II) are predominant in situations where the risk of cancer is relatively low (gastric cancer and chronic gastritis). The aim of this study was to estimate the mean volume-weighted nuclear volume of epithelial cells in type I intestinal metaplasia in various pathological states of gastric mucosa: gastric cancer (n=25), gastric ulcer (n=32), and chronic gastritis (n=40). After standard fixation, embedding, sectioning and routine HE staining, the mean point sampled nuclear intercept was estimated by the original test system and objective x100. The cubed nuclear intercept was multiplied by $\pi/3$. In type I intestinal metaplasia found in gastric carcinoma patients there is significantly greater nuclear volume (118,34± 10,32 μm^3) than in type I intestinal metaplasia in other pathological states of gastric mucosa (77,72±8,58 μm^3). Our results suggest that nuclear volume may be used in early detection of precancerous states of gastric mucosa.

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ARGYROPHYLIC NUCLEOLAR ORGANIZER REGIONS IN INFECTIOUS MONONUCLEOSIS

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Nucleolar organizer regions (NORs) are loops of ribosomal DNA which are present in the nucleoli of cells and which transcribe to ribosomal RNA. The simple one stage argyrophylic (AgNOR) method for demonstration of NORs is proving to be a useful technique in certain fields of histopathology. The aim of this study was to estimate number of AgNORs in the infectious mononucleosis. The peripheral blood smears from 10 patients with infectious mononucleosis and 10 healthy subjects were stained by one step AgNOR method. The incubation medium was prepared by dissolving gelatin at 2g/dl in 1g/dl aqueous formic acid. This was mixed in a ratio 1:2 volumes with 50 g/dl aqueous silver nitrate solution and poured over the sections and incubated for 30 min at room temperature, under "safelight" conditions. To estimate the mean number of AgNORs per cell nuclei the objective x100 and absolute magnification of x1200 were used. The mean number of AgNORs in atypical lymphocytes (4.17±0.09) was significantly larger than in normal lymphocytes (1.41± 0.08, p<0.01, t-test). Our results suggest increased proliferative rate of activated T lymphocytes in infectious mononucleosis.

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DIRECT VASCULAR CONNECTION BETWEEN ADRENAL GLAND AND THE KIDNEY IN NORMOTENSIVE AND HYPERTENSIVE RATS

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The direct vascular connection between adrenal gland and kidney (DVC) was described in the cat by Cow as early as in 1914. In 1978 Katholi et al. showed that catecholamines reaching the kidney through the DVC contributed in the regulation of the kidney function during the experimental hypotension in the dog. The purpose of present study was to investigate the DVC in normotensive Wistar rats (NCR - 10 animals) and in the spontaneously hipertensive rats (SHR - 10 animals). The subject of the study was chosen due to the results published by Przybylski et al., suggesting that the DVC plays an important role in the development of the hypertension in the SHRs. The animals were anesthetized with ether and the intraperitoneal injection of urethane (900 mg/kg b. w.). The vascular system was perfused with normal saline containing heparin (10 IU/ml). Later on, the vessels were injected with the gelatin-India ink mass (5 NCRs and 5 SHRs) or with Batson's resin (5 NCRs and 5 SHRs). The surfaces of adrenal glands and the kidneys of the rats injected with gelatin mass were observed under the operating microscope, and, thereafter, put into the paraffin blocks, cross-sectioned, transiluminated in the methyl salicilate and observed under the magnification of 50-100X in the light microscope. Specimens injected with Batson's resin were macerated in the KOH solution and then coated with carbon and gold, and observed in the scanning electron microscope (JEOL JSM-35C). The study we conducted revealed, that the DVC is better developed in the hypertensive animals. We confirmed the results obtained by Katholi et al. in the dogs suggesting, that the blood stream from the adrenal gland is directed to the superior pole of the kidney. The proper description of the adrenorenal portal system may be in future an important contribution to understanding of the pathogenesis of the hypertension in humans.

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CD4+/CD8+ RATIO AND INTERLEUKIN 2 LEVELS BEFORE AND DURING REMISSION IN NEWLY DIAGNOSED IDDM PATIENTS AND IN RELAPSE

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Autoimmune processes underlie in islet destruction in insulin dependent diabetes mellitus (IDDM). The suitable markers for this process are autoantibodies sach as: Islet cells antibodies (ICA), insulin antibodies (IA) an other antibodies, as like as changes in T lymphocytes subpopulations and changes in productions of some cytokines. The purpose of this study was to investigate the possibility to predict remission and relapse in newly diagnosed IDDM patients. We compared CD4+, CD8+, CD4+/CD8+ ratio and IL-2 in healthy control (10 volunteers-A) and in 15 newly diagnosed IDDM patients, before remission-B, at the time of remission-C and at the time of relaps-D. Patients were on intensified insulin therapy by PEN.

Group	CD3+(%)	CD4+(%)	CD8+(%)	CD4+/CD8+	IL-2(U/ml)
A	66±4	40±3	22±2	1,8±0,3	1,82±0,43
B	63±5	48±5	20±2	2,3±0,2	3,53±0,27
C	67±4	45±2	23±2	2,0±0,3	2,85±0,54
D	65±3	49±3	19±2	2,6±0,3	4,21±0,66

Interleukin 2 which reflects T cell activation (measured chromatographicaly) and CD4+/CD8+ ratio correlate with the course of diabetes and might be used as suitable markers. IL-2 was higher at the time of diagnosis and at the time of relaps. CD4+/CD8+ ratio was lower at the time of remission and show increase before the time of relapse. According to this results prediction of remission and relapse is possible.

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ANTITHYROGLOBULIN AND ANTIMICROSOMAL ANTIBODIES IN SOME DISEASES OF THYROID GLAND-POSSIBLE PREDICTION FACTORS?

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Frequency of antithyroglobulin (AT) and antimicrosomal (AM) antibodies were analysed in few thyroid gland diseases and in insulin dependent diabetes mellitus (IDDM), because those illnesses might occur together.

In group of 65 patients with diffuse euthyroid goiter grade I-II, AT were founded in 10(6,2%) and AM in 6(9,2%). In 55 patients with Graves` disease AT were founded in 13(23,6%) and 16(40%) had AM. In group of 42 patients with primary hypothyroidism AT were founded in 12(28,6%) and AM in 3(7,1%) Ten (11,5%) patients out of 87 with IDDM had AT and 3 of them (3,4%) AM. Five patients (12,5%) out of 25 with IDDM and Graves`disease together, had AT and even 8(3,25%) AM.

In control group of healthy volunteers (25), without diseases of thyroid gland in family,AT were founded in 1 volunteer and AM were founded in neither of them.

Patients with euthyroid diffuse goiter and IDDM patients were retested after 3 years. Four (25%) out of 16 patients with diffuse euthyroid goiter and positive either AT or AM got Graves` disease and 2(12,5%) primary hypothyroidism. Eighteen out of 25 IDDM patients with positive AT or AM or both were retested. Two of them got Graves` disease and one primary hypothyroidism.

These results suggest that appearance of AT and AM might precede clinically manifested diseases of thyroid gland and that those antibodies might be used like predict factors.

In patients with primary hypothyroidism biopsy of gland was not performed, so the type of pathological process was not defined.

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USEFULNESS OF D-DIMER TEST IN THE CLINICAL DIAGNOSIS OF ACUTE AND ACUTE-UNLIKELY PULMONARY EMBOLISM (PE)

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In hospitalised patients acute PE is one of the most common form of acute lung diseases being an important cause of sudden unexpected death. Both forms of PE makes many difficulties in recognising what leads to underdiagnosing in 30% though there are many diagnostic approaches; angiography, computer tommography, radionuclide ventilation-perfussion lung scanning, but each method have some limitations so there is a need for adjunct, simple and rapid test it is suggested that D-dimer level is diagnostic indicator of PE after regarding its clinical forms; acute and acute-unlikely.

24 patients with both forms of PE were carefully studied. They were consecutively admitted to the Emergency Unit of the National Institute of Lung Diseases in 1994-95. The D-dimer level was measured by latex agglutination assay using a cutoff at 500 ng/ml. PE have been diagnosed or excluded by at least one of the tests: angiography, computer tommography, radionuclide ventilation-perfussion lung scanning.

Results: D-dimer test might be useful in excluding acute PE but probably cannot be used in excluding acute-unlikely PE. This test is not usefull for diagnosis nor acute PE or acute-unlikely PE when D-dimer level is above the given threshold because of its low specificity.

Many diseases connected with fibrinogen degradation might have influence on D-dimer level (cardiac failure, neoplasia, pulmonary infections, rheumatic fever). That means that D-dimer is not specific only for PE.

The test show 90% sensitivity 60% specificity 45% PPV 85% NPV.

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EPILEPSY DUE TO NEUROCYSTICERCOSIS

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In this review we observed 10 patients (7 men,3 women) with epilepsy due to neurocysticercosis(NCC)-71,42% of 14 patients with CT-documented NCC. The aim was to underline frequency of epilepsy due to NCC. The diagnosis of NCC was based on clinical,EEG,radiological findings and serological reaction(Indirect immunofluorescence test) in serum and cerebrospinal fluid.Seizures were generalized in 8 and partial in 2 patients. CT showed brain calcifications (inactive form) in 6 and cysts (active form) in 4 patients.Patients having both calcifications and cysts (2) were classified as patients with active NCC. Mental deterioration was noted in 50% patients.Anticysticercal antibodies in serum were found in 50% and in cerebrospinal fluid in 20% patients.All patients had benignant form of NCC (calcifications,cysts or both in the parenchymal brain),but high frequency of mental deterioration prescribed early discovering, diagnosis and therapy of this parasitic disease.

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MOULDS AND AFLATOXINS DETECTION IN DIFFERENT FOODSTUFFS

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The primary objective of this work is the protection of the health of the consumer. Aflatoxins are producing of the genus Aspergillus which can contaminate various foods and foodsttufs. The frequency of fungy from genus Aspergillus, which were proved to produce aflatoxins, was especially interesting. Tested samples (297) were from period of last few years.The food supplies (coffee beans, tea plant, rice, beans, flours, corn, black pmappers show a different contamination by molds and great variety of kinds. The most frequent identified mould derived from genus Penicillium (42,9%), and then from genuses Mucor (12,2%), Aspergillus (9,7%) and from others in smaller percentage. In our research, we used tests from "Transia" France: "Detection test" or "La Carte test for aflatoxin" based on an enzyme-immunoassay reaction using a monooclonal antibody which specially recognizes aflatoxins B1, B2, G1 and G2. In this study 2,9% (297/8) of food samples contained aflatoxin more than 5 ppb. The control of mycotoxins requers the prevention or reduction of aflatoxins contamination in food and feedstuffs to harmless levels. Monitoring of high risik foods and feeds for aflatoxins is important in preventing contaminated items from reaching to consumer.

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EFFECTS OF ANTIOXIDANSES (Se AND VITAMIN-E) ON THYMUS AND SPLEEN OF BALB/C MICE DURING THE SUBACUTE INTOXICATION

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Benzene and ether glycol are widely used in production processes of lacguers, rubbers, colors and cosmetic preparations. The aim of this study was to establish effects of benzene on thymus and spleen of BALB/C mice durig the antioxidative protection by Se and vitamine-E, as well as to compare it with the effects of ether glycol.

We devided the animals into five groups during the experiment. One of which was the control group. In the other three, antioxidanses were used separately or together while the finalgroup was dosed, besides oxidanses, with benzene. Benzine was used in doses of 100mg/kg b. w., Se in doses of 20 mg/kg b. w. Vitamin -E and benzene vere administered intraperitonelly and Sewas given per os.

Our resulte showed the unchanged body weight of animals, increased thymus weights in animals treated only with Se or both Se and vitamin-E, as well as the decreased spleen weight of animals treated with benzene and antioxidanses. Histologicalresults indicate the changes on the level of both examined organs in the animal group treated with benzene, indicating the lighter expressed extramedular hematopoesis, in comparison to animals treated with ether glycol.

Our results indicate the protective effects of Se and vitamine-E especially when dosed together.

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TRANSPORT OF ^{3}H L-NAME ACROSS THE BLOOD BRAIN BARRIER OF THE RAT

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Nitric oxide (NO) is a free radical, produced by NO synthase, an enzyme which produces NO from l-arginine. NO is produced in cells of immune system, in neurons and endothelial cells. N-ω-nitro arginine-methyl ester (L-NAME) is an arginine analog and is most frequently used in research for competitive inhibition of NO synthase *in vitro* and *in vivo*. The aim of our study was to investigate the transport of L-NAME across the blood-brain barrier in rats. Therefore, the technique of *in situ* perfused rat brain (Takasato et al., 1984) was performed. Obtained results showed that ^{3}H L-NAME rapidly penetrated from blood into the brain. Volume of distribution of ^{3}H L-NAME in cerebral cortex were (ml/100g): 0.019 ± 0.014, 0.021 ± 0.005. and 0.068 ± 0.015 after 30 sec., 1 min and 4 min of perfusion, respectively. To determine distribution of L-NAME between capillary endothelial compartment and brain parenchyma compartment we performed capillary depletion technique (Triguero et al, 1990). Obtained results showed that there was not any difference in distribution of tested molecule between those two compartments, which implicate that metabolization of L-NAME in brain endothelial cells was not so rapid.

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IS THE HEALTH OF STUDENTS UNDER STRESS WORE ENDANGERED?

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In Students' Health Centre in Belgrade, from January, 1994. until June 1994, 12189 students, enrolled at the first year of studies at a University in Belgrade, have made their medical-checkup. Out of that number, by method of accidental specimen, 1000 students have filled out determined questionnaires, that discover and grade some of the stresses that had happened in their lives, that were and/or were not connected with the war, so - called peaceful stresses.

While analysing pathological conditions that were found during the medical checkup and while comparing the group of 776 students that werent under stress with the group of 224 students that were, big differences occured in the resume (conclusions) of doctors in their in their judgment of health conditions. Students under stress have often diseases such as: anemia, acute respiratory diseases, neurotic disturbance, different skin diseases, malnourished, allergy, cardiovascular neurosis, asthma...

According to this research it was concluded, that the health of students under stress is weaker, worse and more endangered, so this is anather confirmation that stress starts most of psycho-neuro-endocrine-immune disturbances, that further exert influence on health weakness and appearance of different diseases.

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MODIFIED MOSAIC METHOD IN SURGICAL TREATMENT OF OTAPOSTASIS. OUR OWN EXPERIENCE

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Contemporary accomplishment in medical science and techniques make possible much more successful application of plastic surgery in the correction of acquired or born defects of ears.Our own experience showed that otapostasis could be corrected before seventh year and the beginning of school, because the development of external ear is practically finished by that time.

The most acceptable solution for lop-ears in our experience is *Padovan's* mosaic method, with our original modifications. We found an authentic material for this work in 88 patients hospitalized at ORL clinic of Nish Clinical Center, that were operated from 1993. to 1995. (three years period).

Our method consists of 4 acts in the following order:
I act - skin marking and excision
II act - making of ear bearing
III act - cartilage modeling
IV act - ear "tightening" and placing on the mastoid

During the procedures we didn't have any complications except in five cases with post-operative dehiscence, but mostly due to undisciplined behavior of the patients.

After the medical treatment ear configurations of patients were normal and average only because of our original modifications of *Padovan's* mosaic method, where we didn't remove any piece of ear cartilage.

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DISFUNCTIONAL VOIDING IN CHILDREN-FAMILIAL DISORDER

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The etiology of functional micturation disorders is still unknown.Monosymptomatic nocturnal enuresis (MNE) is commonly a familial disorder,but little is known about familial and geneticalbases of other disfunctional voiding syndromes.
Ame of the work: was to estimate the importance of genetical and familial factors in etiology of disfunctional voiding syndromes in children.
Methods and material: voiding pattern and family history of patients (pts.) with enuresis and/or history of urinary tract infection wete analysed.
Results: there were 79 pts. aged 3-14y.(7y.3m.+3y.). Disfunctional voiding was discovered in 55 (69.9%)pts; 10 pts.had MNE,and 45 pts. other disfunctional voiding syndromes.Six(60.0%)pts. with MNE had family history of enuresis and/or renal lithiasis.Twenty three (51.1%) pts. with other voiding disfunctional syndromes had at least one family member with enuresis (50.0%of pts.), renal lithiasis (43.0 of pts.),urinary tract infections (18.0% of pts.) and/or renal upper tract anomalies (10.0% od pts.).
Conclusion: The results of this work suggest the importance of genetical and familial factors not only in the etiology of MNE,but also in the etiology of other disfunctional voiding syndromes.

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ARTERIAL HYPERTENSION AS A RISK FACTOR IN THE DEVELOPMENT OF SPONTANEOUS INTRACRANIAL HEMATOMA

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Spontaneous intracerebral hematomas (SIH) represent bleeding into cerebral parenchyma which do not coincide with head trauma. Thair alimical interest comes from their frequencies, their high rate mortality and some kind of handicap.
For the last four years 176 patents were treated by medication or by surgery at our Naerosurgical clinic. The average age of patents was 53 years.Regarding etiology systemic hypertension was the most common cause of SIH (75%).Hematomas of hipertensive origin were localised mostly in the basal ganglia.
Preventive measures must be multidisciplinary wherein one should emphasize the significance of the primary prevention.This mea ns systematic health education and permanent clinical observation of some age group

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Diseases of great socioeconomic impact

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FIBROMA JUVENILE CURRENT MANAGMENT

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Fibroma juvenile is very rare tumor, it was proven to have a benign course. It belongs to the angiofibromas group.
Aim The aim of our study was to point out our 10 years experiance in treatining this disease, with " PER VIA NATURALEA " method at our radilogy institute in Nis.
Material and Methods
Our study was carried out at UNiversity Clinic of Ear,Nose and Throat and Institute of Radiology in Nis, Serbia.
The operation was done under general anesthesia. Computed tomography of epipharygis and angiography was done preoperatively.
Conclusion
It was emphasized that collaboration between surgeon and radiologist is necessity. Now we are able to assess dimension and structure by applying current radiology methods.
Embolisation of A.Maxillaris and A.Pharingis Ascedens enable us not to tie A.Carotis Externa.
This is the main reason that we advocate this radiologic approach to the fibroma juvenile.

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PERCUTANEOUS TREATMAN OF VARICOCELS IN PEDIATRIC AGE GROUP

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Aim To investigate the effectiones of percutaneous scleroembolotherapy in pediatric patients. The varicocels are the most frequent cause of male infertility. They first develops in early adolescence and their effect may be progressive.
Patients and Methods Nine patients (9-14 years, mean 11,2 years) with a grade II to III left sided varicocele, were treated with scleroembolization using Gelfoam plugs, hypertonic glucose and aetoxysclerol. Four of them had been unsuccessfully treated surgically before percutaneous intervention. Five F Cobra and Side-Winder catheters were used (Medi-Tech)
Results Insufficiency of the left internal spermatic vein was present in all 9 patients and insufficiency of the right internal spermatic vein in 6 of them. There were no immediate or late complications. Postembolisation syndrome was pronounced in two boys (scrotial pain for 24-48 hours) No recurrence occured during folow-up period of 8-34 months.
Conclusion Varicocele is a bilateral disease. Scleroembolization is safe and efficient method of treatment in adolescent patients.

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THE INPORTANCE OF THE CLINICALLY ESTABLISHED MILD HEART INSUFFICIENCY IN THE ESTIMATION OF THE CONTRACTILE FUNCTION OF LEFT VENTRICLE IN PATIENTS DURING THE ACUTE MYOCARDIAL INFARCTION

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Using the fact obtained by clinical examination in order to improve the oryentation concerning the disorder of the contractile function(CF)of the left ventricle(LV),we compared the clinically estimated heart insufficiency(HI)with EHO estimated CF of LV,and everyting for the purpose of determining the importance of HI as a possible indicator of CF of LV during the acute myocardial infarction(AIM).
The examination included 108 patients suffering from AIM divided in two groups according to the Killip-Kimbal criterion: 1.group-non HI(82),2.group-with HI(26). CF was estimated by EHO-WMS method.
It was established that the second group had undergone a statistically considerable decrease($p<0,005$)of CF of LV.We opserved that even a mild HI indicated a considerable depression CF of LV.In other words,it is a rather reliable indicator in quick orientation concerning the disorder of CF of LV during AIM.

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FOLLICULAR ADENOMA AND GRAVES HYPERTHYROIDISM

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Clinical entity of concurrent follicular adenoma and Graves disease is now well recognised. We have done retrospective analysis of patients who underwent surgical treatment with diagnosis of Graves disease, for 15 years period (January 1981-December 1995). Completed data were obtained for 600 of 635 patients who were operated. In 20 (3.3%) patients (2 male and 18 females, aged between 19 and 64 years) the diagnose of follicular adenoma was established after operation. In all of them the diagnose of Graves disease was established using well recognised criteria; clinical manifestation of thyreotoxicosis, diffuse goitre and some of them had ophtalmopathy. Total serum thyroxin level was between 195 and 390 nmol/l and serum thyrotropin level was depressed (<0.1 mU/ml in all of them). Ultrasound examination revealed enlarged diffuse and asymmetric goitre in 12 patients. All patients were treated with metimazol (starting dose - 40-60 mg/daily, later 10-30 mg/daily) from six months to 20 years and were eumetabolic during the therapy. In all patients (patohistological examination of thyroid specimens (PHDg) showed presence of both follicular adenoma and struma colloides hyperplastica. Incidence of follicular adenoma in our patients with Graves' disease is not greater than in general population. We think that there is a need for patohistological examination of greater number of thyroid slices.

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PREVALENCE OF GB-C VIRUS IN HEMODIALYSIS PATIENTS

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A new flavilike positive-stranded RNA virus associated with GB-C hepatitis has been discovered, recently. Hemodialysis patients run a high risk of parenterally transmitted viral hepatitis including hepatitis B (HBV) and C (HCV). As HBV, HCV and GB virus share the same route of transmission we determined the prevalence of GB virus by PCR in 80 hemodialysis patients. We then correlated the presence of this virus with HBV and HCV in these individuals, as well as with duration of dialysis and liver function tests. 80 chronic hemodialysis patients (29 female, 51 male, mean age: 61±12 years) were assessed. GB-C RNA was detected by nested PCR using primers deduced from the published NS3 region. HBsAg, anti-HBs and anti-HBc were determined by commercial radioimmunoassays, and HCV RNA by RT-PCR. 8/80 (10 %) of hemodialysis patients were positive for GB-C RNA. None of them were coinfected with HBV. 6/80 (7.5 %) patients were positive for HCV RNA. 1/8 individuals, positive for GB-C RNA (12 %) had a coinfection with HCV infection. Other risk factors such as intravenous drug abuse, transfusions prior hemodialysis treatment, tattooing, needle stick injury, infectious sexual partners were denied by all hemodialysis patients. Therefore, the annual incidence of HGV infection in our group of hemodialysis patients was calculated to be 1.05 % (n=8; GB-C RNA +, mean duration of hemodialysis: 7.8 years). The presence of GB-C infection did not correlate with AST/ALT levels compared with the non infected individuals. AST/ALT levels remained within the normal range among all infected individuals. We conclude that GB-C infection is quite common among hemodialysis patients with a prevalence of 10 % and an annual incidence of 1.05 %. Coinfection with other viral hepatitis are rare. In these immunocompromised patients transaminases are no surrogate markers for GB-C infection.

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IDENTIFICATION OF ACTIVATION INDUCED GENES IN B CELL APOPTOSIS

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Activation induced cell death (AICD) is an important form of programmed cell death occuring in different mammalian tissues. We have established a human B cell line for the analysis of apoptosis, induced by crosslinking of surface IgM (sIgM). Using the human EBV negative Burkitt lymphoma cell line BL41, we should be able to identify early response genes express after crosslinking of sIgM and specific for the induction of sIgM mediated apoptosis. To identify these genes we used the mRNA-Differential-Display-method.

Using this method we were able to detect 310 differentialy expressed gene fragments. To restrict the number of fragments and to confine them to the ones that are really related to differentially expressed genes, we performed Dot blot hybridisation of the reamplified DNA fragments with radiactinve labeled cDNA from stimylated and unstimulated cells respectively. We thereby confined the number of interesitng PCR products to 120 that show strong differential hybridisation signals on Dot blots.

These 120 PCR products were subsequently cloned and sequented. Searching for homologies in the sequence database we could rule out some of the clones. By that means we restricted the number of clones to 70. Most of this clones showed no significant homology to any fo the known sequences in the data base. Further analysis of this clones is performed by Northern blot analysis.

In addition we hybridised the Dot blots with radioactive labed cDNA from other cell lines where apoptosis can be induced. The HBL-100 is a epithelial breast cell line that undergoes apoptosis succeeding to Anoikis. Anoikis means loss of intergration in the epithelial context. The following cell death is therefore a protection against metastasing and proliferating of solitary cells. Five clones showed clearly differential hybridisation signals in all three systems. Thus strengthness the point these might not only, be genes playing a role in activation induced B cell apoptosis. It suggests that these genes could be major regulators of AICD.

We are currently performing Nothern hybridisation. In order to the limits of the DD-RT-PCR we are going to screen a already established cDNA library to get full length information. To elucidate the physiological role of these genes we are starting to express them in different cell lines using the tetracyclin repressable expression system.

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TRANSPORT OF TIAZOFURIN FROM BLOOD INTO THE RAT BRAIN

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Using in situ technique of perfusing rat brain (Takasato et al., 1984) it has been studied transport of the nucleoside analog, ^{3}H tiazofurin from blood into the brain. It has been calculated valve of 7,56 $\pm$ 0,87 ul/min/g for the constant of unirectional transort, kin, which indicates tiazofurin penetrates blood-brain barrier of the rat slowly. The addition of 1 mmol/L of unlabeled tiazofurin to the perfusing Medium caused decrease of kin valve, 3, 27$\pm$ 1,22 ul/min/g. That indicates tiazofurin is transported from blood into the rat brain by the mechanism that can be saturated. The addition of 0,2 mmol/l of adenosine also caused decrease of kin valve for ^{3}H tiazofurin, 2,28 $\pm$ 0,69 ul/min/g. This indicates that in the brain uptake of tiazofurin, adenosine transport sistem has an important role at the luminal side of the blood-brain barrier, but it also indicates there is a possibility tiazofurin gets into the brain using some other transport sistem. Obtained results are undoubtly significant cause they make possible to get to know better regional farmakokinetiks of tiazofurin in brain which is very important for more accurate clinical use.

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GUIDING PRINCIPLES OF INSULIN THERAPY AND FLUID REPLACEMENT DURING DIABETIC KETOACIDOSIS

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Diabetic ketoacidosis represents a significant clinical problem and failure to recognise precipitating causes may result in increased mortality during this disease state.The study included 12 Insulin-Dependent diabetic patients with diabetic ketoacidosis with mean age of 52,3 ± 3,8 years. Concepts of fluid replacement was generally divided into two successive phases: in initial 4 hours moderately slow saline solution (sol. NaCl approximately 7ml/kg/h) and during the subsequent 4 hours slower infusion of saline solution (sol. NaCl approximately 3,5ml/kg/h). During mentioned periods low-dose insulin therapy (8IU/h of short-acting insulin) was employed. During first phase of therapy glucose level decreased from 32,24±4,63 to 20,16±3,97 mmol/l ($p<0,001$). Simulteneously, arterial pH raised from 7,024±0,01 to 7,18±0,01 ($p<0,05$). During second phase further improvement was observed, because glucose level decreased to 8,2±1,68mmol/l ($p<0,0003$) and pH increased to 7,32±0,002($p<0,001$). The fast recovery rate of other metabolic parameters was achieved also,since the correlation between glucose/K+ was $r=0,92$ ($p<0,01$ $y=0,093x+3,3$), glucose/urea was $r=0,89$ ($p<0,001$, $y+0,12x+6,3$) and glucose/BE was $r=-0,68$ ($p<0,01$ $y= -0,08x+3,4$). The main hazards during therapy, including arrhythmia and cerebral oedema were prevented also,since normal heart rate and normotension were established,indicating on optimal metabolic compensation.

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Title of presentation: Developmental hepatic mast cells: histochemical caracteristics. distribution and localisation

Presenting Author: Petrovic Bratislav
Co-Author: Ramin Jegane
University: Universitu of Nis

Histochemical caracteristics, age distribution and topographical localisation were analysed in human hepar during prenatal and postnatal development.

Samples of hepatic tissue were obtained from 28 embrions, fetuses, neonates and children to ten years old, both sexes and without any macroscopic malphormation of disease which can interfere examinated structure. After formalin fixation and paraffin embending. blocks were cut and serial spacemens were stained with Spicer's modified method (Aldehyde fuchsin-Alcian blue), which is specific for identification of mast cells and acid glucosaminoglycans.

The earliest presence of mast cells in hepatic tissue were evidented at the beganing of fetal period in connective tissue of large hilar portal spaces. Mast cells were perivasculary localisated in small Kiernan's spaces and they can be seen after first half of gestation age and during whole postnatal life.

The number of mast cells increased as the content of connective tissue grow, and same happened during the life. Tinctorial properties shape and size have showed moderate polymorphism. Mast cells were not identified intralobulary in any investigated period.

These results pointed out mesenchymal origin of mast cells and that their presence can be indicator of unspecific interlobular connective tissue in hepar. With the maturation, hepar grow as organ and its need for metabolic activities and of her connective tissue grows too. Probably mast cells have some function in it.

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VARIATIONS OF TOTAL LIPID LEVEL IN BLOOD OF PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

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This study examined total lipid level in blood of 35 patients with Acute Myocardial Infarction.

The studied group included 12 women and 23 men with average age of 63.

Nineteen patients had a picture of anterior myocardial infarction and 16 of inferior Myocardial Infarction. Fifteen days after reception the tests are reviewed.

We have analysed total cholesterol, triglicerid, HDL, LDL of patients with acute myocardial infarction and then we compared those values with high risk values for some lipid parameters.

The conclusions are :

- the cholesterol and triglicerids levels of patients with acute myocardial infarction are above the normal
- the level of LDL - cholesterol is above high risk level
- the level of HDL - cholesterol is lower than normal

Values of cholesterol (especially triglicerid) found 15 days after acute myocardial infarction were much smaller than the values on the day of reception.

That indicate that we should examine level of lipid in blood on the day of reception as well as two or three months later, when these values get back on the start level.

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PROXIMAL GASTROINTESTINAL ENDOSCOPY IN CHILDREN

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Invention of a flexible endoscopes which are in their diameter adapted for children, made possible the application of this method in the pediatric gastroenterology. In the study we give examples for diagnostically use of this method such us: recurrence, abdominal pain, gastrointestinal bleedings, possibility of presence of esophagus varicose, ect. We underline a possibility of using this method in treatment in cases of: endoscopic homeostasis, extraction of foreign bodies, transendoscopic popypectomy,ect.Contraindications and complications of this method are also obtained.

Result of our two years old experience (1993 to 1995 year) are presented.In this period 110 proximal endoscopic examinations of children's ages from 13 mounts up to 16 year were done. Particularly group of 39 children with pathological findings during inspections is described, such as: ulcus bulbi duodeni, esophagitis, gastritis, ect. In this study major symptoms which add children on examinations are emphasized.Our former experiences confirms justify of leading into the practice this modern method at our gastrointestinal clinic.

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SWEET'S SYNDROME (SwS) ASSOCIATED WITH HODGKIN'S DISEASE

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Sweet's syndrome (SwS) is an acute febrile neutrophilic dermatosis in which approximately 20% of reported patients have an associated malignacy. Our case, to the best of our knowledge, represents the second reported case of Hodgkin's disease in association with SwS. A 41-old woman suffered from relapsing painful erythematous skin infiltrates on the face, trunk and extremities accompanied by fever and conjunctivis. During the last eruption, a skin biopsy was done revealing SwS. The association of moderate anaemia and relapsing course of SwS alerted us to the possibility of an underly-ing malignancy. Neither superficial lymph nodes nor hepatosplenomegaly were found but ultrasound and abdominal CT scan revealed the enlarged lymph nodes in paraaotic region. An exploratory laparatomy was preformed revealing Hodgkin's lymphoma-mixed cellular disease. After a meticulous staging a diagnosis of IIB clinical stage was made. Pur patient attained a complete hematological remission after the VI courses fo the MOPP regimen, without relapsing SwS. In our patient, SwS was presenting feature fo an underlying M. Hodgkin.
Awaraness of the paraneoplastic nature of SwS helped us in aerly detection of the neoplasm.

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IMMUNOPHENOTYPE OF ADULT ACUTE LYMPHOBLASTIC LEUKEMIA AND OUTCOME WITH TWO DIFFERENT PROTOCOLS

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Between January 1989, and December 1994, 110 consecutive adults (70M/40F), average age 36.3 (range 15-67) were treated for acute lymphoblastic leukemia (ALJ). 51 patients (pts) belonged to L1, 52 to L2 and 7 pts to L3, subtype of FAB classification. Among 110 pts tested, 106 were assigned either to the B Lineage (75 cases-68.2%), or to the T lineage (31 cases-28.2%), 4 pts were of non B non T subtype. Among B-All, 70.7% were B-calla +, 10.3% pre-B, 10% early B and 8.7% of b-cell phenotype. Among T-All, 61.3% belonged to Foon I group (pre-T) and 38.7% to Foon II (T type). Patients were treated with LALA 87 (71 pts) and YU ALL (39 pts) Protocols. The main difference between these Protocols was in consolidation which is much stronger in YU ALL, where high doses of ara-C were applied. Overall complete remission (CR) was achieved in 78 pts (77.3%). The CR/non-CR ratio was as follows: in early B 4/1, in B-calla + (30/10), in pre-B 5/1, in B-cell 1/2 pts. In T-ALL the ratio was 12/4 for Foon and 9/2 for Foon II pts. T-cell leukemia pts had more favourable outcome than B-cell leukemia pts, with respective median disease dree survival (DFS) of 10 months for B-ALL and 15 months for T-ALL. There was no difference in remission rate, DFS and overall survival between two protocols.

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EFFECTS OF INHIBITION OF NO SYNTHASE ON TRANSPORT OF ENDOGENOUS NUCLEOSIDES THROUGH THE BLOOD BRAIN BARRIER OF THE RAT

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Effect of inhibition of endothelial NO synthase on transport of endogenous nucleosides through the blood brain barrier of the rat was studying using brain uptake index technique (BUI) (Oldendorf et al., 1972). Inhibition of NO synthase was performed by i.p. application of 25 mg/kg of l-ω nitro arginine methyl ester (L-NAME). At different times after that (15 min, 1h, 4h), brain uptake index of ^{3}H nucleosides was measured with inert molecule ^{14}C sucrose as standard. In control group BUI values were 4.68±0.93 and 4.1±0.72 for adenosine and guanosine, respectively. After i.p. application of L-NAME values were: 2.87±0.54 (15 min), 2.85±0.87 (1h) and 2.58±0.18 (4h) for adenosine and 2.56±0.23 (15 min), 2.98±0.41 (1h) and 3.61±0.23 (4h) for guanosine. This results showed that inhibition of NO synthase caused decrease of brain uptake of ^{3}H labeled adenosine and guanosine. Inhibition of guanosine brain uptake correlated with plasma concentration of L-NAME after i.p. application (measured in separate study under the same conditions). Uptake of ^{3}H thymidine was insignificant in control group as well as after application of L-NAME.

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THE EFFECT OF CAMPTOTHECIN ON BAX AND BCL-2 EXPRESSION IN LYMPHOCYTES OF SYSTEMIC SCLEROSIS PATIENTS.

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Systemic sclerosis /SSc/ is a chronic connective tissue disease characterized by massive fibrosis of the skin, subcutaneous tissue and internal organs. The cause of SSc still remains unknown, but clinical and laboratory investigations suggest that activation of the immune system appears to be of basic significance in development of tissue fibrosis in SSc. Defective regulation or abnormalities of apoptosis may play an important role in the development of autoimmune disease and uncontrolled cells proliferation. Camptothecin /CPT/, an inhibitor of topoisomerase I, has been suggested for systemic sclerosis treatment. CPT has immunosuppressive activity implying its possible use in management of immunologically induced fibrosis. The aim of the study was to investigate the effect of CPT on expression of factors which regulate apoptosis. Expression of bcl-2 a protein which negatively regulates apoptosis and bax expression which is bcl-2 antagonist was investigated. We elucidated the effect of CPT on bcl-2 and bax expression in lymphocytes from patients with systemic sclerosis and, for comparison, from healthy donors. Bcl-2 and bax oncogen expression was studied by ELISA and immunofluorescent staining. Apoptosis was evaluated with the use of the "Cell Death Detection Kit".The results showed major abnormalities in apoptosis and bax and bcl-2 expression in lymphocytes of systemic sclerosis patients. The steady-state apoptosis was higher in lymphocytes from patients than in healthy donors.CPT decreases an expression of bcl-2 and increases bax expression what may explain its immunosuppressive role. In conclusion, CPT may decrease proliferation of stimulated lymphocytes in SSc patients by influencing the expression of oncogenes which regulate apoptosis.

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SERA OF PATIENTS WITH SYSTEMIC SCLEROSIS STIMULATE ACTIVITY OF TOPOISOMERASE I.

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Systemic sclerosis (SSc) is a chronic disease, characterized by progressive thickening of the skin and subcutaneous tissue, accompanied by fibrosis of internal organs.These symptoms are due to excessive production and accumulation of connective tissue proteins, predominantly type I collagen. Our group has recently found that the expression of topoisomerase I is increased in fibroblasts of patients with SSc and topoisomerase I inhibitors are capable of reducing the abnormal collagen production.

Since sera of SSc patients contain anti-topoisomerase I antibodies the aim of this study was to investigate the effect of these patients' sera on topoisomerase I activity. The study was performed with the use of a standard supercoiled pBR322 relaxation assay.

Interestingly, we have found that sera of SSc patients increased the activity of topoisomerase I. To further investigate this problem we have assessed the effect of several factors present in SSc sera on topoisomerase I expression and/or activity. It was shown that cytokines, such as TGF-β1, TNF-α and IL-2 significantly up-regulate the expression of topoisomerase I, indicating that their presence may have a significant influence on the topoisomerase I stimulating activity of SSc sera. We have then shown that antitopoisomerase I antibodies penetrate to the nucleus of SSc fibroblasts in vivo and we presently investigate the effect of immunoglobulins isolated from these patients sera on topoisomerase I activity.

In conclusion, we have shown that factors present in SSc sera may stimulate collagen type I production by regulating topoisomerase I activity in these cell.

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NEW CORONARY EVENTS IN PATIENTS WITH MYOCARDIAL INFARCTION AND DISTURBED LIPID STATUS

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The aim of this study was to determine if a lipid status increase in patients with myocardial infarction influence findings of new coronary events. We have examined 14 patients with disrobed lipid status (increase of cholesterol, LDL, triglicerides and decreased HDL) and 14 patients in control group with normal lipid status. During first year from myocardial infarction we have monitored the finding of new coronary events (destabilizing of angina pectoris, new dysrithmias, re-infarction). We found high statistical significance in cholesterol and LDL levels between groups; statistically significant increase of cholesterol and LDL in female group with disturbed lipid status. We found high statistical significance between disturbed lipid status and destabilizing angina pectoris and re-infarction. We conclude that from our results, disturbed lipid status and its maintaining through one-year follow-up period significantly influence findings and prognosis of new coronary events.

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NUCLEAR SHAPE IN PRECANCEROUS LESIONS OF HUMAN GASTRIC MUCOSA

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We have studied nuclear shape in dysplastic lesions of human gastric mucosa.

Material and methods: At 172 consecutive endoscopic gastric biopsies, 89 dysplastic lesions were found, 25 in mucosa adjacent to carcinoma, and 64 in clinically benign pathologic states of gastric mucosa (duodenal ulcer, gastric ulcer, chronic gastritis of A and B types, and gastric polyps). Gastric dysplasia was classified as mild, moderate and severe. In gastric cancer patients 9 severe dysplasias were found, in contrast to 5 found in clinically benign states. After standard fixation, embedding, sectioning, and hematoxylin-eosin staining, the nuclear profile area and perimeters of epithelial cell nuclei were measured by interactive video-morphometry at total magnification of x6000. The NCI were calculated by dividing the nuclear perimeter by square root of nuclear profile area, and standard descriptive quantities were calculated (the mean, maximum, minimum, standard deviation, coefficient of error).

Statistical analyses were performed using either t-test or Mann-Whitney test. A probability level of $p<0.05$ was employed for significance test.

Results: The highest mean value of NCI was found in moderate dysplasia in gastric ulcer patients (4.92±0.47) and was significantly higher than in moderate dysplasia adjacent to carcinoma (4.64±0.23). Coefficient of error for NCI was significantly higher in dysplasias adjacent to carcinoma (3.8±0.6) than in clinically benign states (2.9± 0.4).

Discussion: Study of a number of classic reports for histological diagnosis of gastric dysplasia shows the frequent occurrence of terms such as"irregular shape", "more or less regular shape", "polymorphic", "pleomorphic", "dystorted", etc. The nuclear irregularity can be precisely reflected by a simple geometric expression known as the NCI. A perfect circle will have a NCI value of 3.45. This value increases with increasing in deviation from a perfect circle.

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ELECTROCARDIOGRAPHIC SIGNS OF RIGHT VENTRICLE ACUTE MYOCARDIAC INFARCTION: PREDICTIVE VALUE FOR INTRAHOSPITAL MORTARLITY

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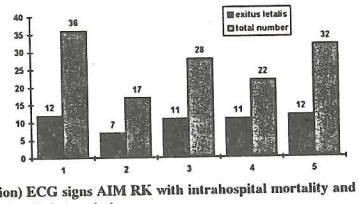
Right ventricle (RV) acute myocardiac infarction (AMI) requires more attention because of high incidence of it among patients (pts) with inferior\posterior\lateral left ventricle AMI. Also, there is a specific therapy for RV AMI if plasma expansion is considered. Detection of high risk group is important because more aggressive therapy might be needed.

The AIM of the represented paper was to analyse the potentialities of ECG signs of RV AMI to predict intrahospital mortality.

PATIENTS AND METHODS: In 45 pts.with inferior AMI following parameters were studied: 1) ST elevation D_3>ST elevation D_2; 2) ST elevation $V_4R\geq 1$mm; 3) ST elevation $V_4R\geq 0.5$mm; 4) ST elevation $V_6R\geq 1$mm; 5) ST elevation $V_6R \geq 0.5$ fourteen pts.died.

Results:



Value (potention) ECG signs AIM RK with intrahospital mortality and ECG signs like markers exitus letalis in hospital

Param.	Coef. corr.	p	Sensit.	Specif.	Posit. predict. value	Negat. predict. value	Predik. accuracy
ST $D_3>D_2$	0.3015	0.0441	85.7%	22.6%	33.3%	77.8%	42.2%
ST $V_4R\geq 1$mm	0.2557	0.0901	50.0%	67.7%	41.2%	75.0%	62.2%
ST $V_4R\geq 0,5$mm	0.3662	0.0134	78.5%	45.2%	39.3%	82.3%	55.6%
ST $V_6R\geq 1$mm	0.5160	0.0003	78.5%	64.5%	50.0%	87.0%	68.9%
ST $V_6R\geq 0,5$mm	0.3844	0.0091	85.7%	35.5%	60.0%	84.6%	51.1%

Conclusion: Good sensitivity and negative predictive value for intrahospital mortality is observed for each ECG sign of RV AMI. The best accuracy is found for ST elevation in $V_6R>1$mm. This marker should be evaluated in more RV AMI pts.,before its use is recommended for high risk group identification.

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THE EFFECTS OF ANTISERUMS, ANTIMEGAKARYOCYTES AND BENZENS ON MEGAKARYOCYTOPOESE

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Different organic dissolvers (such as : Benzen, Ether-Glicogen) influence occurrences of trombocytopenya in the exposed workers groups and experimental models .

The aim of our work is to establish the effects of Benzen , Antiserum and Antimegakaryocyte on the number of trombocytes in the peripheral blood and on the number of megakaryocytesin thebone marrou. The reason of doing so is that either Benzen and Antiserum or Antimegakaryocyte do cause Trombocytopenya .

Used animals (in the experiment) are mice BSLB/c 8-12 weeks old, body weight 19+,-1.4g, female sex .They have been divided into three groups .

First group was a control group, treated with physiological solution . Second group was treated with Benzen-dose 1ml/kg(bw), while the third was getting antiserumantimegakaryocyte in the same volume . The way of administration way of administration was subacute.

The obtained results show that the number of Trombocytes and the number megakariocytes in the control group has stayed unchanged (1060000 trombocytes and 73,60 megakariocytes per mm2 of bone marrou . In the group which was treated with Benzen ,a moderate fall of trombocytes in the peripheral blood ($0.8x10^6$) has been shown, will the number of megakaryocytes has stayed unchanged because of short period of intoxication (15 days of subacute intoxication). In the third group the number of trombocytes in the peripheral blood was lessend for few tenth which had caused death of the animals from bleeding within 24 haures (considering that the number of trombocytes has

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ROLE OF INSULIN IN REGULATION OF Na-PUMP ACTIVITY.

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The aim of this investigation was the study of insulin effect on the activity of Na-K-ATPase in renal tissue.

The activity of Na-K-ATPase in microsomes of renal tissue was being investigated on Wistar's rats with exogenic load of insulin and in insulin insufficiency (experimental diabetes), concentration in blood immunoreactive aldosteron, insulin and condition of kallikrein-kinin system.

The findings showed that insulin insufficiency, leading to the hormonal disbalance, causes the decrease of effectiveness of aldosteron and the lowering of enzyme activity. Exogenic load of insulin to the intact rats raises of Na-K-ATPase activity in microsomes of renal tissue, in consequence of activation of "latent" Na-K-ATPase.

Thus, insulin is one of the humoral regulators of Na-pump activity, and mineralocorticoides determine it's influence to the enzyme.

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REGULATION OF Na^+-K^+-ATPase ACTIVITY IN ALLOXAN DIABETES.

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The aim of this investigation was the study of the activity state of Na^+-K^+-ATPase in experimental diabetes and mechanisms, effecting its functional activity. The activity of Na^+-K^+-ATPase in cells of cortical and medullary substances and microsomes of these layers of renal tissue was being investigated on Wistar's rats of intact and with alloxan diabetes; insulin-connecting activity and utilization of glucose cells of renal tissue as well.

The data showed the decrease of Na^+-K^+-ATPase activity in cells of cortex and medulla of renal tissue in rats with alloxan diabetes. It is discovered the decrease of binding of ^{125}I-insulin with specific receptors and the decrease of glucose utilization by the cells of renal tissue depending on degree of gravity of experimental diabetes.

Thus, the absolute insulin insufficiency - alloxan diabetes - the number of accessible for insulin receptors decreases a second time and the insulin resistance develops in consequence of which the utilization of glucose by the cells of renal tissue breaks, synthesis of ATP and the activity of Na^+-K^+-ATPase decreases.

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COMPARISON OF ENZYME IMMUNOASSAY WITH IMMUNOFLUORESCENCE IN DETECTION OF *CHLAMYDIA TRACHOMATIS* ENDOCERVICAL INFECTION IN PREGNANT WOMEN

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Enzyme immunoassay was compared with direct immunofluorescence test for detection of chlamydia trachomatis endocervical infection in both asymptomatic and symptomatic pregnant women. A total of 52 endocervical specimens were evaluated by enzyme immunoassay and by immunofluorescence test. The results obtained, showed that the sensitivity of the enzyme immunoassay was relatively low (62%), while the specificity was high (93%), using direct immunofluorescence test as standard test. Both of these new antigen detection assays provide an alternative to cell culture and have found their place in diagnostic settings.

Key words: *Chlamidia trachomatis*, enzyme immunoassay, immunofluorescence, pregnancy

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TITLE: THE IMPORTANCE OF COMPARISON AMONG ALBUMINURIA, PROTEINURIA AND THE MEASUREMENT OF URINARY IgG IN THE PATIENTS WITH CHRONIC GLOMERULONEPHRITIS

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In regard to a fact that serum creatinine is a good mark for estimation of glomerular function,it is possible to compare the values of serum creatinine with the values of albuminuria, proteinuria and urinary IgG and to see if anyone of these three parameters could be used for estimation of the stage of chronic glomerulonephritis.
in our study we found a positive correlation between albuminuria and serum creatinine (r=0.4360), between proteinuria and serum creatinine (r=0.3746)and between IgG and serum creatinine (r=0.3700). Also we noticed the lower values of urinary albumin, total protein and IgG in control group (range of serum creatinine is 1-120 umol/L) compared to the first group (serum creatinine 120 umol/L).
In regard to a differences in prize among the methods for measurement of albuminuria, proteinuria and urinary IgG, we suggest the use of the cheapest one. Thus, the measurement of urinary total protein rather than albumin or IgG would minimize the expense of serial follow-up of patients with established chronic glomerular injury.

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THE RELATIONSHIP BETWEEN HEALTH RELATED BEHAVIOUR AND GLUCOSE HOMEOSTASIS IN THE OBESE?

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The aim of the present paper was to find out whether there is some association between some behavioural factors(smoking,alcohol consumption and physical activity level) and the parameters of glucose metabolism.The investigatin was conducted in the group of 164 obese persons aged 20 to 64 years. Standardized questionnaires were used to determine heelth related habits. Concerning the anthropometry ,following parameters were assesed: BMI(kg/m2), waist (W),waist to hip ratio(WHR) and sagittal diameter(Sd).A75 g oral glucose tolerance test (OGTT) was performed to determine glucose and insulin levels. The fasting insulin levels were significantly higher in smokers (25.4 mU/L) then in nonsmokers (17.2 mU/L) (p=0.0001 Concerning alcohol consumption , the results were similar (p=0.024) .The glucose and insulin area under the curve were significantly related to smoking habits and alcohol consumption (p=0.03;p=0.001),but index of physical activity was not.
The results obtained here pointed out that health related habits,especially cigarette smoking and alcohol consumption could worsene the metabolic disturbances in the obese persons.

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STUDY OF NEUROBLASTOMA IN SUSPECTED POPULATION

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Neuroblastoma is embrional tumor of the neuronal tissue. It is one of the most malignant tumor in childhood. Total recovery is possible only with early diagnosis (I and II stage). Levels of urine cathecholamine metabolites (vanil mendelic and homovanilic acid) are important for diagnosis and prognosis of neuroblastoma. We wanted to establish validity of these parameters in early diagnosis of neuroblastoma. In the period 1987-199o we analysed 1287 suspected children on neuroblastoma. Pathologic results were found in 78 children. In mentioned period we used Spot Test method. In the period 1991-1995 we analysed 8o3 children. Pathologic results were found in 36 children. In the mentioned period, beside Spot Test method, we involved Modified Thin Layer Chromatography (Merco Test - TCL). Paying attention more frequently to neuroblastoma and involving Modified Thin Layer Chromatography in last period we detected much more neuroblastoma in the first year of life.

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THE PATHOLOGICAL DATA ABOUT THE FREQUENCY OF METASTASES OF CANCER OF LUNGS.

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The duration of life of patients with the cancer depends on the size, localization of the primary tumor, histological structure and stage of differentiation of the tumor cells and availability of the closed and longitudinal metastases. The pathologist studies allow to receive the reliable data about the dissemination, availability of metastases, histological structure and stage of differentiation of the tumor cells. We studied the 193 protocols of the autopsies in Smolensk Regional Hospital during the last decade. 97 (50.2%) of the patients with cancer of lungs had the multiple metastases. The most frequent organs affected were liver (in 80 patients) and adrenals (in 64 patients). The metastases of the bronchogenic cancer of lungs to the lymphatic nodes of the mediastinum were determined in 44 (22.8%) patients. The frequencyof the metastases to the kidneys was 8.4%. The brain metastases were determined in 9 patients, the spinal and bone - in 8 patients, the heart and pericardium - in 8 patients, the spleen - in 8 patients. In 20 patients there were no metastases. Our results showed that the metastases affected more frequently the liver and the adrenals.

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CONSIDERATIONS CONCERNING THE STRATEGY OF THE TRANSURETHRAL RESECTION IN SUPERFICIAL BLADDER CARCINOMA

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Transuretheral resection (TUR) is the first choice treatment method for superficial bladder carcinoma. Recurrence after these operations is rather high.

This study wants to show that a part of these tumors is not real recurrences, these are residual tumors, resulting an improper performed TUR. For this purpose we analyzed two groups each including 100 patients with superficial bladder carcinoma TaT1. In all of these cases we performed TUR in two different ways: 1st group standard TUR (simple resection of the tumor); 2nd group: differentiated TUR combined with security biopsies.

In every of these cases was performed a secondary resection (TURS) after 4-12 weeks.

In the first group, the residual tumor-rate was 57%,29% in the second one. The recurrence (till 3 years) was 46% and 21%.

Regarding these results we can formulate the followings:

1. The differentiated TUR combined with TURS represents a certain way to reduce the number of restant tumors and implicit the number of recurrences.
2. A bladder cancer recognized endoscopically till 3 month after a TUR, cannot be defined as recurrence, it is a residual tumor or a non-recognized tumor during the first resection.

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NEUROGENIC BLADDER DYSFUNCTION IN PATIENTS WITH MULTIPLE SCLEROSIS

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Epidemiological studies about frequency and *prognosis quod vitam et functionen* for the patients with multiple sclerosis emphasize the importance of the problem. Among other deficits, micturation act dysfunctions such as urinary retency, urgency or incontinence, are serious diagnmostical and therapeutical problems. The aim of our research was to analyseavailable diagnostical methods, perception of actual neurobiological knowledges and their implantation in new diagnostical protocoles for the purpose of regaining the control over micturation act by responsible undamaged neuronal structures. The research was conducted on the group of 34 patients with multiple sclerosis in different stages of diasase. Methodology was neurological examination and functional urodynamical investigation of the factors of expulsion and retency. Our results showed that micturation act dysfunction is present in 79,4 % of patients. It was a dominant symptom in the beginning of the illness in 2 patients and was accompanied with a weakness in the lower extremities in 2 more patients. Cystometry showed hyperreflexive bladder in 58,8 %, areflexive in 29,4 % and mixed forms in 11,6 %. 7 patients didn't have troubles with urination, but urodynamical research foun areflexive bladder in 6 of them and hyperreflexive in 1 of these patients. We also found detrusor sphincter dissinergia in 41,2 %.

Conclusions:

1) Urinary tract is often damaged in patients with ms
2) Urodynamical researches allow us to follow the factors of urination in approximately physiological conditions
3) Dysfunction can be urodynamically registered before they are clinically manifested which is confirmed by our finding in asymptomatic patients.

Since micturation dysfunction is quite impeding, early application fo theraphy has great importance considering the fact that it can provide preservation of bladder's elasticity and contractility that are essential for making micturation possible.

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ARTERIES OF THE ADRENAL GLAND OF THE WISTAR RATS

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Rat is one of the most commonly used experimental animals. Some experimental methods of the physiology and experimental surgery are based on the perfusion of one kidney *via* the abdominal aorta or the renal artery. In 1914 Cow noticed, that during perfusion of the kidney *via* abdominal aorta, the adrenal gland (AG) may be perfused as well. In such a case the results of an experiment may be inadequate due to catecholamines flowing through the adrenorenal portal system to the superior pole of the kidney. The aim of our study was to describe the most common types of arterial vascularization of the adrenal glands, what might be important for experimental surgeons. The study was performed on 30 Wistar rats of the weight range 250 - 325 g. The rats were anaesthetized with ether and intraperitoneal injection of urethane (900 mg/kg). All the abdominal viscera were removed and the teflon catheter was inserted into the thoracic aorta. The vascular system was perfused with normal saline containing heparin (10 IU/ml) and then injected with gelatin - india ink mass. Three types of arterial vascularization of adrenal glands were distinguished. The **renoaortic type** (adrenal branches from the renal artery and abdominal aorta) was observed both on the left (15 - 50%) and right side (6 - 20%). The **renal type** (all adrenal branches from the inferior phrenic artery running from the renal artery) seemed to be characteristic for the right AG (24 - 80%), and was not observed on the left side. In 15 rats (50%), on the left side only, we observed the **aortic type** of arterial vascularization, where all the branches took they origin from the abdominal aorta. Concluding our results, it is highly possible that on the right side perfusion of the kidney without perfusion of the AG may be difficult due to the common occurrence of the renal type of vascularization, but the ligation of the inferior phrenic artery may solve a problem in such a case. On the left side small suprarenal branch of the renal artery (when not noticed) in the renoaortic type may cause a problem and change the results of experiment.

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DENTAL PULP REACTION TO DOSED PREPARATION FOR METALLOCERAMIC CROWNS

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Aim Investigations studying pulp reaction to preparation for various kinds of artificial crowns have been made by now.But there is no data on dental pulp reaction to preparation of the given volume of hard dental tissues(dosed preparation).

Materials and methods In 10 dogs the front teeth of the upper and lower jaws from one side were prepared.The animals were split up into 2 groups: in the first group the volume of the removed hard tissues made up 1/3 of their thickness(0,5 mm of hard tissues was removed,the remnant thickness of hard tissues made up 1,5 mm on canines;0,4 mm of hard tissues was removed and the remnant thickness was 0,8 mm on incisors); in the second group the volume of the removed hard tissues made up 2/3 of their thickness(1,4 mm of hard tissues was removed,the remnant volume was 0,7 mm on canins;0,8 mm of hard tissues was removed,the remnant thickness of hard tissues was 0,4 mm on incisors).The material for morphological investigation was taken after 24 hours.

Results It was established that when the hard tissues were removed on 1/3 of their thickness,in the incisors pulp there was hyperemia,tissue edema,marginal stagnation of leucocytes) and on the canines hyperemia was noted.In the second group where the volume of removing the hard tissues made up 2/3 of their thickness,plethora,inflammatory infiltration,dystrophy changes of nerve endings,vacuolisation of odontoblasts were observed in incisors pulp.In canines pulp hyperemia,marginal stagnation of leucocytes and tissue edema were observed.

Conclusion The pulp reaction mostly depends on the remnant thickness of hard tissues rather than on the volume of removing ones.

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NONINVASIVE HEART EXAMINATION IN PATIENTS WITH SYSTEMIC SCLEROSIS

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Heart damage in the systemic sclerosis (SSc) is the consequence of the myocardial fibrosis, which is focal and leads to the scar making in both ventricles. The heart involvement as well as the lung damage are of great importance in the survival of patients with SSc.

20 patients were examined- the control group (18 women and two men ,average age 50+8,8) without the heart disease and 21 patients (19 women and two men average 50,3 + 7,05 and with average diseaseduration of 10,9+7,6) with SSc according to the criteria of the American Rheumatology Association. 16 patients had difuse cutaneous SSc(dSSc),and five patients had restricted cutaneous SSc.

All patients had submaximal exercise test according to Bruce's protocol.The degree of loading, duration of loading and the double product (DP) were followed. Policardiographic estimation comprised measuring of systolic (STI) and diastolic (DTI) and time intervals ILVET and PEP , PEP/LVET ,IVR and the relation a/E-O.

Physical working capacity is significantly lower in patients with SSc than in the control group; (1,61+0,67 v.s. 2,4+0,8; p<0,005), duration of loading is significantly lower in patients with SSc (4,2+1,8 min 6,9+2,4), DP before the test and at the same level of loading, it is significantly higher (p<0,05) in comparison to the control group (108,6+ 17,7 v.s. 96,6+14,5).

Shorteing of ILVET was found in 47,7% of patients with SSc polycardiographic estimation. In 57% of patients PEP was prolonged and in 52% the relation of PEP/LVET was increased. 86% of patients had prolonged IVR and 86% of patients had the increased relation of a/E-O.

Our results showed significantly decreased physical working capacity and significantly disordered phases of systole and especially phases of diastole (isovolumetric relaxation) in patients with SSc, that gives the insight in the degree of the myocardial damage in patientsith SSc even when there were not clinical signs of the heart disease.

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CLINICAL EVALUATION OF ACUTE BLEEDING FROM UPPER PARTS OF DIGESTIVE SYSTEM

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The bleeding from upper parts of digestive system (UpDS) is originally from digestive organs which are laid over the Treitz ligamentum. In the acute cases it is an urgent condition, because of fast progress of circulatory collaps, which vitally damaging patients' life. For that reason, urgent endoscopy is priority in diagnosis and therapy of that condition.

During 4 months period, from february to may 1995, 120 patients, 70 males and 50 females, age range 16-72 yeras with UpDS signs, were being treated at Gastroenterology Clinic of Nis Medical School. At all the patients, urgent endoscopy, as well as clinical examination, and determination of haematological status, has been done immediately after hospitalization.

According to total number of patients, at 86 cases it was a requerent bleeding because of some UpDS disease earlier present, like gastric or duodenal ulcers (52%) and oesophageal varices (12%).

Rest 34 patients (28%) didn't have medical history positive above about UpDS disease. By urgent endoscopy, at 3 of them it haven't been found any visible lesions which could be cause of present bleeding. At 31 patients, it was the first sign of some UpDS disease, covered by then, but discovered and confirmed by urgent endoscopy.

In consideration of urgency of this condition, it has been discussed different diagnostic possibilites in early progressive phase.

It has been concluted, that in analyzed patients groupe, the most frequente cause of acute UpDS bleeding, was peptic ulcer. Also, the prior diagnostic procedure for evaluation of acute UpDS bleeding was urgent endoscopy.

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DISCOVERING THE SCHOOL CHILDREN WITH MINIMMALE CEREBRAL DISFUNCTION (MCD)

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The discovery of MCD in school children and preventive treatment has the big place in overall picture of child diseases prevention.The treatment, the change of living conditions, environment, relations, behavior incluides help given from various sources and it can be of great importance to the overall picture of child's health status.

We aim to discover specific disfunctions in learning process, speech impediments, easier motoric disfunctions, and certain behavioral disfunctions, especially lack of attention and display of hyperactive behavior.

Method of work: the phediatrict, and the school team consisting of teacher, psyhologist, pedagogist and social worker are involved in reaserch. The following list is used: Conners's shortlended scale for MCD filled by the teacher after examining the pupil for 30 days. In the research we included pupils from II, III and IV grade from 8 schools in Nis. The data was given statistical input. The pupils highly prone to MCD are given further treatment and research.

Results: after researching 3500 pupils there are 1400 with different research status. The average age was 8,9 years, prones to MCD is bigger in the boys group in relation 2:1. The most common factor is lackness of attention (36%) and the least significant is behavior relation (22%).

Conclusions: the border between normal and not so normal behavior is not very sharp but certain facts can be concluded:

–from all the examined pupils there were 5,3% with MCD possibilities.

–the prones to MCD can be established with complex treatment starting from pre–school age, involving the family of the examined pupils, and involving the trained school team;other required specialists, and insisting of simulation abilities of the child, its ability to adapt to social system.

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TRANSPORT OF ^{3}H TIAZOFURIN ACROSS THE SHEEP CHORIOID PLEXUS

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The aim of this study was to explain the ^{3}H tiazofurin transport mechanism through the epithelial cells' luminal membrane of the sheep chorioid plexus. The method of perfused sheep chorioid plexus has already been used many times in order to investigate the transport of small hydrosoluble molecules from blood into the CSF. The following results were obtained:

- During initial period of the perfusion, 8.29 ± 0.84% of the total amount of tiazofurin injected into the capillaries of the chorioid plexus passes across the chorioid plexus' luminal membrane.
- However, during the four minutes after the injection of the bolus, it seems that the taken molecules of tiazofurin get back into the capillaries, so the total net uptake of tiazofurin is -0.97 ± 1.9%.
-The introduction of 0.1 mmol/l of unlabelled tiazofurin, 0.04 mmo/l of adenosine and depletion of perfusing medium from sodium ions has caused the decrease in maximal tiazofurin uptake to 0.98 ± 0.16%, 1.77 ± 0.11% and 4.19 ± 0.57%, respectively.

These results demonstrate that tiazofurin transport across the chorioid plexus luminal membrane is mediated via the adenosine transport system, and that this process is, at least partially, sodium dependent.

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Evaluation of the role of psychosocial conflicts in school disadaptation

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Introduction: Among the causes of school disadaptation there are different forms of influence of physical/psychical aggression of social environment. Conflict relationships of the pupils of the common schools have been characterized. **Methods**: Conflict relationships with classmaters, elder pupils, teachers have been investigated by anonimous questionnaire (relationships were defined as "bad" or "good". **Characteristics of investigated group**: 196 common school's pupils (106 males, 90 females), mid-aged 14,0. **Results**: "Pupil-teacher" relationships were defined with 65% of respondents as "bad" and have been detected as more conflict (the pupils aged 14-15 answered like that more frequently). Causes of this have been defined by respondents as: -humiliation of personal dignity; - hostiling; - unmerited penalites; - roodness. "Pupil-classmaters " relationships were defined as "bad" with 22% of respondents and have been detected as significantly less conflict. Different forms of physical and/or psychical aggression of elder pupils to youngers were recognized with 34% of respondents. The most frequent forms of this aggression were: -massacrage and/or constant threat of punishment; - money extortion; - constant personal humiliation (connected with physical disabilities, - successes or failurers in learning; - poverty).**Conclusion**: - microsocial environment is physically and/or psychically aggressive to the big part of pupils; - common school's pupils conflicts with classmaters, teachers and elder pupils are not inevitable and necessary in the process of their personal growth; - solving of this problem demands the collaboration of teachers, parents, psychologists and pupils.

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SPECIFIC VERSUS SYMPTOMATIC DRUG THERAPY IN ANTI - ALCOHOLIC TREATMENT

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Object of this study was to compare effectiveness of two different modes of anti - alcoholic treatment on the basis of its outcome. Patients included in the study underwent anti-alcoholic treatment in Belgrade Institute for Addiction Disorders between 1990 and 1.7.1995. They were divided into two groups: group 1. (264 patients who received symptomatic drug therapy), group 2. (126 patients who received specific drug therapy).
Data for this retrospective study were obtained from case histories. Data processing was done SPSS statistical program. On the basis of the outcome of the treatment patients were classified as: non - abstinents, abstinents and abstinents with satisfactory social adaption.
Results showed 14% of non - abstinents in group 1. and 10,4% in group 2. 58,3% of abstinents in group 1. 53,6% in group 2. However there were only 9,1% of abstinents with satisfactory social adaption in group 1. compared with 16,8% in group 2.
Statistically significant difference was noted only when effectiveness in terms of accomplished abstinence with satisfactory social adaption was concerned.
The conclusion was that only in regard to this criterion specific drug therapy in treatment of alcoholism, proved to be more successful than the symptomatic one.

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INFLUENCE OF DRINKING PATTERN ON THE OUTCOME OF ANTI-ALCOHOLIC TREATMENT

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Object of this study was to investigate the influence of drinking pattern on the outcome of treatment of alcoholic patients. Study included 217 patients who underwent anti-alcoholic treatment in Belgrade Institute for Addiction Disorders between 1990 and 1.7.1995. Data were obtained from case histories. Patients included in the retrospective study were divided into groups - two bases: 1) pattern of drinking and 2) outcome of the treatment.
According to the drinking pattern occasional drinking, everyday drinking and combined drinking groups were formed. According to the outcome of treatment patients were classified as: non - abstinents who achieved satisfactory social adaption. Statistical significance was calculated using parametric tests. Results show greatest percentage of abstinence (70.5%) in the group of patients with combined drinking pattern. In addition to this, the most successful patients, who achieved abstinence with satisfactory social adaption, were also most commonly found in this group (12,9%). In general best results with given tratment were achieved within the group of patients with combined pattern of drinking.

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DISTRIBUTION OF MOTIVES FOR STARTING ANTI-ALCOHOLIC TREATMENT BASED ON PATIENTS GENDER AND LEVEL OF EDUCATION

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Object of this study was to indetify the most common motives for starting anti-alcoholic treatment and their distribution according to patients gender and level of education. Study included 457 patients treated for alcoholism in Belgrade Institute For Addiction Disorders between 1990 and 1.7.1995. were included in the study. The method of retrospective analysis and SPSS statistical program for data processing were applied.
According to our results the most common motives for starting the anti-alcoholic treatment among our patients were problems concerning health, work and family or relationship matters.
No statistically significant difference was found in relation of these motives to patients gender.
Family was dominant motive for 41,7% of female and 30,4% of male patients. Work was dominant motive for 19,5% of female and 25,0% of male patients. Motive distribution in relation to patients level of education shows that problems at work were dominant motive for
31,0% of less educated patients. Family and marital problems were dominant motive for 32,5% of patients with secondary level of education, 37,5% of patients with further education and 41,2% of patients with further education and 41,2% of patients with high education (degree).Our suggestion is that these results could be further used in prevention and treatment of alcoholism.

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THE FREQUENCY OF DIFFERENT TYPES OF PSYCHOPATY AND ACCENTUATIONS OF THE CHARACTER IN TEENAGERS WITH STD.

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The aim of this research was to reveal a relationship between the frequency of STD in teenagers and the type of their psychopathy and accentuations of the character.
The pathochararcterological diagnostic interrogation which has been devised by N.Y.Ivanov and L.E.Lichko (Saint-Petersburg 1992) in Bechterev Psychoneurological Institute was used for determination of the types of psychopathy and accentuations of the character.
112 teenagers with STD were examined. They were differentiated according 3 basic types of psychopathy and accentuations of the character: epileptoid type (excitable) , schizoid (retarded), and hysterical type.
We received the following results:
- epileptoid type -53 persons (47,3%)
male- 21persons (65,6%)
female -32 persons (41%)
-schizoid type -33 persons (29,5 %)
male- 9 persons (28,1%)
female- 25 persons (32%)
-hysterical type -23 persons (20,5%)
male- 2 persons (6,3 %)
female-21 persons (27%)
3 persons (2,7%) were not diagnosed according to these types because psychopathy or accentuation of the character was not determined.
Thus teenagers of excitable type are more disposed to asocial behaivor, they are inclined to have sexual contacts more often and they have the highest risk to suffer from STD.
Teenagers of retarded type are less inclined to have sexual contacts at earlier age due to their high introvert mode of behavior, their astenisation, that's why they have less risk to be infected with STD.
The amount of females with hysterical type of psychopathy is higher than males , that's why the risk of infection is higher for female with hysterical type of pschopathy.

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Aim: 1. To define reasons and causes of stress onset. 2. To point out stress symptoms. 3. To propose how to help people to fight against stress.
Method: The study is based on the examination of 200 persons of different age, sex and background. They answered a questions about their life. We used special score published in American Journal of Psychosomatic Research. If the score is more than 150 that person has 37 % of chance to get sick in next 2 years (psychosomatic diseases).
Result: The main events leading to the stress are death of husband and wife (100 points); divorces; prison; death of relative; accidents; graduation; pregnancy; sexual problems; child birth; change of financial problems; new job; death of close friend; marriage problems; family problems; big personal success; end or beginning of education; change of town; change of habits; problems with boss (23 points). Stress symptoms are: pain in neck and back; headache; tachycardia; hypertension; gastrointestinal problems; often illness; nerve irritability; insomnia; feeling of loneliness; sexual problems; loss of interest for work and others; consummation of alcohol, cigarettes and drugs.
Conclusion: The stress is not exterior but it is inside .Those are only reasons and factors which have influence on our health. The most important is to learn how to handle life and problems and we will live healthy and happy life.

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ELECTROPHYSIOLOGICAL CHANGES IN THE SEROTONIN SYSTEM PRODUCED BY TRICYCLIC ANTIDEPRESSANTS

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1. The decrease of mortality in patients intoxicated with tricyclic antidepressants (TAD), is observed. By knowing the molecular action mechanisms of TAD at receptors level and their interaction with other drugs, serious disorders of cardiac rhythm, which are the main cause of death. In these patients, can be overcome.

2. A representative sample group has been studied, made up of patients admitted in the Clinical Toxicology Department of the Emergency Hospital Bucharest.

The final diagnosis was established using GC/MS Varian Saturn 5 computer system which thoroughly identifies and semiquantitative determines of TAD and his metabolites in the biological fluids (blood, urine, gastric lavage).

3. - 4. The main causes of exitus and the setting up of the correct intensive care steps necessary for saving patients' lives are important to know as far as TAD intoxication are concerned.

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ALLOPURINOL AS A PROTECTOR OF ISCHEMIC RENAL FAILURE CAUSED BY OXYGEN FREE RADICALS

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Under ischemic conditions ATP is degradeted to AMP and subsequently to hypoxanthine.Upon reoxygenation,hypoxanthine and xanthine are oxydized with rapid enzymatic generation of H2O2 and O2.These reactive forms of oxygen initiate oxydative injury,presumably through formation of hydroxil radicals.
The aim of our study was to emphasise a protective role of Allopurinol in oxydative injury,as an inhibitor of proteolitic conversion of xanthine dehydrogenase to xanthine oxydase.
In our study we used 14 Chinchilla rabbits of both sex.Their weights were from 2.65-5.10 kg and they were randomly devided into two groups.The difference between these two groups was that we were giving 50 mg/kg/day of Allopurinol for three days to the second groop of animals.At the start of experiment we were taking bload for measuring an index of lipid peroxydation and level of conjugated diens,that are equal to a level of oxygen free radicals.After that we made nephrectomia and took a part of tissue for its index of lipid peroxydation.Second day we caused ischemia on remaining kidney and it last for one hour.After 5 and 60 minutes of recirculation we took bload and tissue to explore the same parameters as on the start of the experiment.
Results of our study are showing us a highly statistical significans difference (HSSD)-$p<0.01$ in level of conjugated diens between two groups in "zero" moment.In 5^{th} minute of recirculation there is a HSSD-$p<0.01$ in index of lipid peroxydation in bload and tissue,also between two groups.In 60^{th} minute of recirculation there is a HSSD-$p<0.01$ in index of lipid peroxydation in tissue,between two groups.Also we found a great increse in level of most of the parameters inside the first group of animals($p<0.01$).There was no such increase in the group that was treated with Allopurinol for three days(no increase in level of oxygen free radicals).
Conclusion of our study is that Allopurinol is greatly decreasing a level of systemic lipid peroxydation so it can be used as a protector of oxydative injury during reoxygenation.

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THE INFLUENCE OF A LOW DOSE OF A BENZYLIC DERIVATIVE ON IMMUNE SYSTEM IN INFECTED LABORATORY ANIMALS

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Keywords: original substances, experimental infection, immunomodulating effects

ABSTRACT

We studied the effects of an original synthetic substance in mice. The substance is a benzylic derivative (noted B). It has been found to have immunomodulating effects on this animals.

We used an original screening methods consisting in three levels for evaluating the effects on the IS. The first level studies the peripheric blood leucogram and the T-lymphocytes (by the rosetting technique). The second level consists of the examination of the spleenîs and liverîs macroscopic and microscopic aspects. The third level studies the serum complement activity (Hartmann-Brécy technique), the phagocitosis capacity of the peripheric neutrophilis granulocytes (NBT test), the serum opsonic capacity and the bactericide and phagocytosis activity of the peritoneal macrophages.

We will present the results obtained in animals which was inoculated with Klebsiella pneumoniae 507, after 14 days treatment with:

- group I (experimental group): treated with B, administered orally, in dose of 12,5 mg/kg body weight (b. w.), unique daily dose, 14 days;
- group II (the first control group): treated with Levamisole, administered orally, in dose of 10 mg/kg b.w., unique daily dose, 14 days;
- group III (the second control group): treated with saline solution 0,9%.in dose of 0,5 ml/20 g b.w. mice, administered orally, unique dose, 14 days.

We administered the substance through an intragastric tube.

We determinated the T-lymphocytes, the serum opsonic capacity, the bactericide and phagocytosis activity of the peritoneal macrophages, in survival animals.

The rate of survival at 14 days after the moment of infection was:

- group I: more than 50%
- group II: more than 40%
- group III: less than 30%.

The obtained data showed strong imunomodulatory effects for studied substance. These effects were similarly to Levamisole. We concluded that our substance conferred a significant protection against the infection with Klebsiella pneumoniae 507 in mice.

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EXPERIMENTAL Klebsiella pneumoniae 507 INFECTION AND THE INFLUENCE OF A LOW DOSE OF A METHYLENE-DIAMINE DERIVATIVE ON IMMUNE SYSTEM

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Keywords: original substances, experimental infection, immunomodulating effects

ABSTRACT

It has been studied the effects of an original synthetic substance in animals (mice). The substance is a methylene-diamine derivative (noted MD). It has been found to have immunomodulating effects on this animals.

The effects on the IS has been studied using an original screening methods consisting in three levels: the first level studies the peripheric blood leucogram and the T-lymphocytes (by the rosetting technique); the second level consists of the examination of the spleenîs and liverîs macroscopic and microscopic aspects; the third level studies the serum complement activity (Hartmann-Brécy technique), the phagocitosis capacity of the peripheric neutrophilis granulocytes (NBT test), the serum opsonic capacity and the bactericide and phagocytosis activity of the peritoneal macrophages.

We will present the results obtained in animals which was inoculated with Klebsiella pneumoniae 507, after 14 days of treatment with:

- group I (experimental group): treated with MD, administered orally, in dose of 12,5 mg/kg body weight (b. w.), unique daily dose, 14 days;
- group II (the first control group): treated with Levamisole, administered orally, in dose of 10 mg/kg b. w., unique daily dose, 14 days;
- group III (the second control group): treated with saline solution 0,9%.in dose of 0,5 ml/20 g b. w. mice, administered orally, unique dose, 14 days.

Every substance was administered through an intragastric tube.

The immunitary parameters have been determinated in survival animals, using the original screening method. The rate of survival at 14 days after the moment of infection was:

- group I: more than 50%
- group II: more than 40%
- group III: less than 30%.

The obtained data showed strong imunomodulatory effects for studied substance. These effects were similarly to Levamisole.

We concluded that our substance confered a significant protection against the infection with Klebsiella pneumoniae 507 in mice.

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THE USE OF CHEMILUMINESCENCE IN ESTIMATING THE STATE OF PATIENTS WITH ACUTE ETHANOL INTOXICATION.

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According to statistic figures in 1993 in Russia the average alcohol consumption was 14 liters per head of the population. Excluding youngsters, women, and pensioners each able-bodied man had 42 liters of absolute alcohol. This results in myocardiodystrophy, polyneuropathy, hepatosis and immune deficiency. Acute ethanol intoxication is in the lead among other acute exotoxicosis. But little is known about the role played by alterations of oxygen active forms production in intoxication pathogenesis. **Objective-** To reveal the character of changes in free radical oxidation system in patients with acute ethanol intoxication by means of chemiluminescence (**chl**) analysis and correlate them with the clinical evidence. **Design-** Blood and urine were taken for **chl** analysis under admission , after 3, 6, 24, 48 hours. **Chl** of blood plasma and urine, provoked by adding of Fe2+, whole heparinisated blood **chl**, blood,activated by prodigiosanum (immune stimulator) **chl** were studied. Findings of **chl** analysis were correlated with case history measures (blood pressure, heart rate, neurologic status, complete blood count, biochemical blood analysis, urinalysis, the electrocardiogram). The obtained data were processed with the help of StatGraphics program. **Participants-** 24 patients with alcoholic coma. **Setting-** Toxicological department, municipal clinic hospital No 21, Ufa city. **Results-** Under admission the **chl** intensity of blood plasma and urine was approximately twice lesser than the control index. Patients were distributed into two groups according to **chl** intensity of whole blood. Subjects with high level of **chl** intensity formed 37.5%. In clinical aspect, this group was characterized by fairly slight course of intoxication. They regained consiousness in 2-4 hours, normalization of haemodynamic, neurologic and laboratory indices setted in faster. In the group of patients with low level of **chl** intensity (62.5%) slower dynamics of recovery processes was observed. Against the background of disintoxication therapy parameters of **chl** approximated to the control level, but didn't reach it. **Conclusion- Chl** analysis of biological substances can be used as supplementary criterion in estimating the severity of intoxication and disintoxication therapy efficiency.

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ANTIOXIDANT ENZYMES ACTIVITY IN SUBCHRONIC 2-BUTOXYETHANOL INTOXICATION.

Vladan Milojević, laboratory

The effects of 2-butoxyethanol(2-BE), an organic solvent belonging to the ethilene glycol ethers group, on the antioxidant enzymes activity in the liver of mice (Balb/c race) were studied. The animals were treated with a dose of 500 mg/kg perorally for ten days. The morphometric parameters(relative weight of liver and spleen), protein concentration(Lowry method), mangan superoxide dismutase activity and CuZnSOD activity(Mirsa and Fridovich method) and catalase activity(Beutler method) were analysed in this paper. Splenomegalia was registered in the group of animals which were treated with 2-BE, and it points out an extramedular hematopoesis as well as reduced antioxidant enzymes activity. The reduced activity of catalasis and CuZnSOD in the liver isn't statistica ally important in reference to control group. However, the activity of mangan superoxide dismutase is significatly reduced statistically in reference to control group($p>0,01$). Reduced activity of the antioxidant enzymes shows the increased production of free radicals. The result at the study shows that the one of the posible mechanisms of patogenic damage in 2-BE intoxication can be the oxidative stress.

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SERUM OLIGOCLONAL IMMUNOGLOBULIN G IN PATIENTS WITH NEUROLOGICAL DISEASES

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Oligoclonal immunoglobulin G (IgG) unique to the cerebrospinal fluid (CSF) represents an evidence of the occurrence of a humoral immune response within the central nervous system (CNS). In some instances, oligoclonal IgG can be demonstrated in the serum as well as in the CSF. The aim of our study was to evaluate the significance of serum oligoclonal IgG bands (OCBs) in establishing the diagnosis in patients with suspected neurological diseases. We detected the serum OCBs in sixty-four out of 1467 patients (4,4%). Such a systemic immune activity was found either alone (in thirty-two patients) or associated with an intrathecal immune response. The serum OCBs in association with OCBs unique to the CSF were found in patients with multiple sclerosis and other demyelinating diseases, infections affecting the CNS and systemic immune disorders with an influence on the CNS. OCBs, identical in serum and the matched CSF, were found mostly in patients with cerebrovascular diseases, osteoarthropathies, neuromyopathies, infections affecting the CNS and in patients with systemic immune disorders. Such "serum-only" pattern was found to be significantly related to the existence of the polymyositis. The analysis of CSF and serum must be performed in parallel. If not, the results can mislead to the wrong diagnosis.

KEY WORDS: Oligoclonal bands, Immunoglobulin G, Multiple Sclerosis, Isoelectric focusing, Serum.

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COMPARATIVE CT AND MRI STUDY IN PATIENTS WITH COMPLEX PARTIAL EPILEPSY

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Childhood and adolescence epilepsy is often symptomatic and resistant to antiepileptic drugs.Therefore the aim of this study is to investigate structural brain changes in patients with epilepsy.We used two neuroimaging techniques: computed tomography brain scanning (CT) and magnetic resonance of the brain (MRI).The examinations were performed on Magnettom Siemens SP63400,1.5 Tesla.The MRI was done in 3 standard planes in T1 weighted and T2/PD weighted sequence.The interval between the two neuroradiological studies did not exceed 5 years.All patients were clinically and neurophysiologically followed-up.The comparative results of CT and MRI obtained in 24 patients aged between 3 months and 25 years,of both sexes,suffering from complex partial epilepsy(CPE) were analysed.The type of epilepsy was verified according to the international classification of epilepsy and epileptic syndromes.The mean age at seizure onset was 8.9 years.Symptomatic etiology was identified in 13 patients (54.2%). In remaining 11 patients(45.8%) idiopathic epilepsy was diagnosed.Seizures were recalcitrant to antiepileptic drugs in 1 patient (4.2%),11 patients(45.8%) were partially controlled and complete control of seizures was achieved in 12 patients(50%).Correlation between the outcome of CT and MRI scans was basis for classifying patients into 4 groups.Both CT and MRI abnormalities were found in 13 patients(54.2%).There were 7 patients(29.2%) without CT or MRI abnormalities.A group of 3 patients(12.5%) in which only MRI abnormalities were found was especially interesting.There was 1 patient with only CT abnormalities.Pathological MRI findings were seen in 17 (70.8%), while abnormal CT scans were obtained in 14 (58.3%) patients.Morphological abnormalities seen on CT scans were: calcifications(3-12.5%),internal hydrocephalus(1-4.2%), intracerebral haematoma (1-4.2%), unilateral hemispheric swallow (1-4.2%),congenital malformations (2-8.3%) and brain atrophy (5-20.8%).Abnormalities detected by MRI were:leucoencephalopathia (1-4.2%), ishaemic cortical lesions (1-4.2%), asymmetry of lateral ventricles (2-8.3%), brain atrophy (3-12.5%), hippocampal sclerosis (1-4.2%), posttraumatic lesions (2-8.3%),cystis septi pellucidi (1-4.2%), vascular lesions (1-4.2%), cortical hamartomas (2-8.3%), tumour (1-4.2%) and congenital malformations (1-4.2%).The results of our research suggest that MRI appeares to be superior method to detect structural abnormalities in patients with CPE.In most of the cases with abnormalities on both imaging techniques, the regions of abnormalities seen on MRI were more extensive than the abnormalities seen on CT.In some patients abnormalities were detected by MRI despite normal CT scans.According to the results mentioned above, MRI was better associated with etiology and degree of seizure control than CT scanning.

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LAMOTRIGINE IN TREATMENT OF DRUG-RESISTANT EPILEPSY IN CHILDREN

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Sixteen children suffering from epilepsy refractory to conventional anticonvulsive and hormonal therapy, were treated with lamotrigine (LTG). In all patients LTG was given per os as additional antiepileptic therapy. Because of the known interaction between LTG and sodium valproate resulting in increase of LTG blood levels, LTG was slowly introduced. That was the way to prevent possible side effects as well.
Dosing schedules for LTG were:
I 2-12 years old patients
a) on valproates - 0.2 mg/ kg / day for two weeks at first, than 0.5 mg / kg / day for two weeks with maintenance dose of 1-5 mg / kg / day
b) others - 2 mg / kg /day for two weeks at first, than 5 mg / kg / day for two weeks with maintenance dose of 5-15 mg / kg / day
II older than 12 years patients
a) on valproates - 25 mg every second day for two weeks at first, than 25 mg per day for two weeks with maintenance dose of 100-200 mg / day
b) others - 50 mg / day for two weeks at first, than 100 mg / day for two weeks with maintenance dose of 200-400 mg / day.
Effects of LTG therapy were evaluated on the basis of clinical observation and EEG records. In six children (3 with secondary generalized complex partial epilepsy, 1 with syndrome Lennox-Gastaut and 2 with complex partial epilepsy) complete seizure control and stable clinical remission were achieved. Complete normalization of the EEG findings in 4 of them (2 with complex partial epilepsy and 2 with secondary generalized complex partial epilepsy) was seen. Twelwe of the 16 patients (75%) showed 50% and more improvement in seizure control. Three patients non-responders to additional therapy with LTG were observed during follow-up. No side effects of LTG were found.

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VISION IMPAIRMENT IN PATIENTS WITH ADVANCED NEUROSYPHILIS

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The aim of the work is to study the clinical signs of advanced neurosyphilis in the Eastern Siberia. Neurosyphilis was diagnosed in 24 patients in the Krasnoyarsk Territory and Republic of Tuva from 1972 to 1995.

Neurological symptoms, positive serological tests of blood and cerebrospinal fluid as well as changes of clinical tests of cerebrospinal fluid were the criteria for diagnostics. According to the diagnosis the patients were divided into the following groups: tabes - 10 (including 2 cases of juvenile tabes), advanced vascular neurosyphilis - 6, advanced syphilitic meningitis - 5, progressive paralysis - 3. In 14 patients vision impairment was observed.

We investigated the different eye symptoms as well as the mechanisms of their development.

In patients with the impairment of n.opticus it's atrophy was observed. In patients with the impairment of Yakubovich - Westfal's nuclei and Perlia's nuclei such symptoms as anisocoria, mydriasis, the absence of reaction to light, convergion and accomodation were observed.

Thus eye symptoms in advanced neurosyphylis were due to the impairment of the nuclei or n.oculomotorius trunk.

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REHABILITATION OF CHILDREN HAVING APALLIC SYNDROM OF ISCHEMIC-TRAUMATIC GENESIS

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Aim:Apallic syndrom is the haviest deegre of the deficit of cortical bain function. In our work we followed the recovery of children having apallic syndrom during rehabilitation.
Methods and material:Our samplecomprises 4 patiens with ischemic and 4 patiens of traumatic etyology the average age was 9.4. (SD 2.8)During rehabilitation the motor control recovering was followed,speech and self-activity.
Results and final conclusion:Based on statistical analysis (double direction analysis acording to Freedman) it was found that all examined patients belong to the same base group and there are not statistical significance of the success of rehabilitation regardless of etiology of apallic syndrom. It was confirmed (Kruskal-Wallis) test that the motor control, speech and self-activity have the same success in recovery.

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DETECTION OF HEMORRHAGIG TRANSFORMATION IN OCCIPITAL LOBE INFARCTION: MRI FEATURES AND CLINICAL VALUE

Background: The incidence, MRI features and clinical value of hemorrhagic transformation in occipital lobe infarction has not been settled so far.

Patients and Methods: During a two year's period 25 patients (aged 28-88 yrs) with ischemic stroke in the territory of the PCA were studied. Serial cCT- and MRI-scans were evaluated for the presence, extent and distribution of secondary hemorrhagic transformation. Imaging results were related to clinical findings. All patients received anticoagulant therapy, supposing a cardiac source of embolism.

Results: In 3 patients both cCT and MRI-studies showed secondary hemorrhage with prominent mass effect. In 13 patients without evidence of hemorrhage in the cCT-studies MRI disclosed secondary hemorrhagic transformation (HT), following a distinct pattern: small hemorrhages, that is of petechial type. These gyriform cortical hyperintensities (T1W) first occured five days after ictus. Showing a slight increase in signal intensity in the following weeks, they could be seen up to at last a ten months' period. None of these patients developed a space-occupying hemorrhage on subsequent scans. Clinical symptomatology remained unchanged or improved gradually.

Conclusions: In contrast to cCT MRI fairly often reveals petechial hemorrhages in posterior infarction. These follow a distinct pattern and seem to have little influence on the clinical course of the patients.

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GENETIC POLYMORPHISM OF GSTM1 & CYP2D6 GENES AND SUSCEPTIBILITY TO HAEMATOLOGICAL MALIGNANCIES

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The glutathione S-transferase and P450 cytochrome enzymes play important roles in the inactivation of several chemical carcinogens. There is a polymorphism of the P450 cytochrome gene at the CYP2D6 locus which in homozygous individuals confers a decrease in metabolic efficiency of the enzyme, thus a "poor metaboliser" phenotype. The M1 fraction of the glutathione S-transferase enzyme (GSTM1) is also polymorphic, with its gene being deleted in over half of the portuguese population. Individuals bearing the "poor metaboliser" phenotype or the GSTM1 gene deletion have been recently associated with a predisposition to certain cancers.

The aim of this study was to determine any difference in the frequency of "poor metabolisers" and GSTM1 deletions between a group of cancer patients and a control group.

For this purpose, we genotyped by means of a PCR based assay, 59 patients affected with haematological malignancies and 212 healthy volunteers.

The GSTM1 gene was found to be absent in 67.8% of patients and 64.2% of controls. The "poor metaboliser" phenotype was present in 10.2% of patients and 4.2% of controls. None of the differences observed were statistically significant.

The results fail to demonstrate any association between the polymorphisms here considered and an increased susceptibility to haematological malignancies.

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STUDIES ON THE BIOLOGY OF DIPLOID HUMAN KERATINOCYTES IN THE CELL CULTURES

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The studies wre carried out on 42 cultures of normal, diploid human keratinocytes (HK) which werte obtained from skin explants taken from patients of different age (average age : 59 years, 70% women 30% men). the skin explants were excised from the hernial sac routinely thrown away duting the operation, and transported to the laboratory as quiqly as possible. The acceptable time between isolating the graft and starting the preperative procedure was found to be 2h. Afew techniques of obtaining skin cell suspension were tested. the most advantageous technique involved treating the skin explants with 0.25% trypsin for 24h at 4C . 85% of the cells obtained this way proved viable, as estimated by trypan blue exclusion test. Analysis of the cell growth of the HK cultured in the media (rpmI 1640, MEM, DMEM + 20% FBS and antibiotics) Showed that the cells grew poorly , with the doubling time longer than 12 months. Threfor we decided to curry out cultures with the 3T3 feeder layer. Before culturing thm with HK at correct densities , the 3T3 cells were irradiated with gamma rays or treated with Mitomicin C. Throughout the experiments , 3T3 cells were grown in the bulk cultures to provide feeder cells. HK cultured together with 3T3 cells attached to the surface of the dish 5 days after inoculation and started to proliferate and forming colonies, with the average doubling time of approximately 12 days. Closer analysis led us to conclude that the apoptosis was tha main reason of the low doubling times in our HK cultures

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Analysis of T receptor delta gene rearrangment in tumor brain metastases

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The gamma deltaT lymphocytes are a minor subset of T cells in peripherial blood and lymphoid organs. Gamma deltaT lymphocytes participate in inflammatory response and in the immune response against infectious pathogens and against certain parasites. A role of gamma delta cells in the immune response against cancer is still disscussed. The rearrangment of T cell receptor delta chain gene is well documented in renal cancer, head and neck cancer, pancreas cancer and melanoma, where local immune response may have some influence on tumor growth. Cells of primary brain tumor or brain tumor metastases because of low immunogenity and the localisation are characterized by lack or weak lymphocyte infiltration. In this study we analysed the TCR delta repertoire in TIL in lung brain metastases. Rearrangment of delta chain of TCR has been analysed in tumor brain metastases by PCR technique using oligonucleotyde primers specific for six Vδ regions and for Jδ1 gene segment..PCR analysis revealed that γ/δ T cells infiltrating tumor brain metastases had only Vδ1- , Vδ3- and Vδ4 to Jδ1 gene rearrangments. Since in peripherial blood lymphocytes we usually observe wider pattern of rearrangement, the obtained results may suggest sellection of γ/δ T cells at tumor site and involvement of restricted subpopulation γ/δ T cells in the specific response against cancer.

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POLYMERASE CHAIN REACTION DETERMINATION OF FETAL SEX IN EARLY PREGNANCY

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The nucleotide sequence of probe 49a, a genomic polymorphic probe located on the long arm of the Y chromosome, has been described (Lucotte et al, 1991). It is an untranslated sequence of about 750bp with a high A+T content. Given the intrusion of Y-chromosome-bearing cells into the circulation of a mother pregnant with a male fetus, this sort of selectively neutral sequence can be used with the polymerase chain reaction (PCR) in sex determination. With a technique called "semi-nested" PCR and the appropriate selection of primers we can amplify an approximately 100 - 150 base pair fragment of this Y-specific repeat sequence and receive a positive band even at very low male DNA concentrations. PCR was performed on 10-fold serial dilutions of male DNA in female DNA with variations of the applied circumstances aiming to a such extension of the detection limit as to provide a system with maximum sensitivity and specificity. The results of this method were verified in a number of cases of pregnant women tested. We conclude that PCR can be potentially applied to fetal sex determination from maternal peripheral blood even at an early gestational stage.

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LONG - TERM ADVERSE EFFECTS OF HEMATOPOIETIC STEM CELL TRANSPLANTATION IN CHILDREN WITH CANCER

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Transplantation of hematopoietic stem cells is a therapy of choice for some children with high- risk malignancies. As it is combined with highly toxic chemotherapy and/or irradiation its use is associated with both early and late morbidity and mortality. Long-term follow up of all patients is therefore essential in our continuing efforts to improve this therapeutic modality. In our institution we have transplanted a total of 33 children (21 boys and 12 girls, mean age 12.6 years, range 1.3-20.3 y) in 1992-1994. The average follow-up period of the patients (including pre-transplant) is currently 67.7 months (13.1-126.9, median=72). The group is subdivided also according the diagnosis and the pre-transplantation therapeutic protocol used. In 30 pts autologous grafts (either BM or PBSC) were used; 3 pts received allogeneic sibling grafts. Eighteen pts (54.5%) are alive; 14 (42.4%) in CR, 1 (3%) in PR and 3 (9.1%) with disease progression. Fifteen pts died; 3 in the peritransplant period {(30d)-2 of mycotic sepsis and 1 of multiple organ dysfunction}. No mortality occured in the early post -transplant period (30-100d). Symptoms of organ toxicity were recorded as per the CCG 3891 protocol; the following side-effects were noted according the WHO criteria: Hepatopathias 1st degree in 2 pts (6.7%), 2nd degree in 1 pts (3.3%); nephropathias 1st degree in 3 pts (10%), 2nd degree in 1 pts (3.3%); pneumopathias 1st degree in 4 pts (13.3%), 2nd degree in 2 pts (6.7%), 3rd degree in 3 pts (10%); cardiomyopathias in 1 pt requiring medication; slightly compromised hearing in 4 pts (13.3%), partial hearing loss requiring aid in 1 pt (3.3%); sicca syndr. in 1 pt (no eye cataracts were observed). Growth retardation (>2SD) was observed in 2 pts (6.7%); amenorrhea occured in 7 girls (70%). So far the limited number of pts in the follow-up does not allow for statistical correlations with the diagnosis and the protocols used; a higher incidence of pneumopathias and growth retardation seems to occur in patients with TBI. The above outcomes seem to be in line with reports from other paediatric BMT centres.

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Influence of pre- or postnatal acoustical stimulation on hormonal reactions in juvenile guinea pigs

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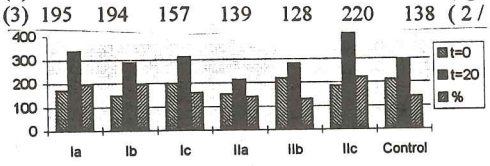
Aim: We postulated an influence from prenatal (I) or postnatal (II) acoustical stimulation of pregnant guinea pigs on their offsprings. We measured hormonal reactions in young juvenile guinea pigs (Cavia aperea f. porcellus). The level of cortisol should demonstrate the internal state of the organismic stress reaction on directly acoustical stimulation.

Method: Two blood samples were taken before (1) and short after (2) stimulation with 2000 (a), 600 Hz (b) or white noise (c). The stimulation regime contains 30 seconds sound and 30 seconds quiet over 15 minutes. (3) represent the increase (%). As results following cortisol levels (ng/ml) were measured in plasma with radioimmunoassays:

	Ia	Ib	Ic	IIa	IIb	IIc	Control
(1)	171	147	198	151	217	184	210 (ng/ml)
(2)	335	286	311	211	279	406	291 (ng/ml)
(3)	195	194	157	139	128	220	138 (2 / 1 %)



Conclusion: It is indicated that prenatal stimulation with sinus waves has an dominant stress effect contrary to postnatal ones. However postnatal stimulation with white noise induced the more pronouced cortisol increase opposite to prenatal ones. This could be due to the higher nervous impulse from white noise in comparison with sinus waves.

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FUTURE AND LIMITS IN ANALGO-SEDATION

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1. We are concerned with the decrease in mortality of patients with a trauma following early an efficient analgosedation that avoid apparition of the complex neuro-endocrin disorders triggered by the "stress-response" and the worsening of the patient's condition.

2. We recommend the use of monoject syringes (already loaded) containing different combinations of drugs for analgosedation; this method has the advantage of immediate use.

For the analgosedation of patients with trauma, we have used the following drug combinations:

- Ketamine or Ketamine S + Midazolam

- Ketamine or Ketamine S + Propofol.

The use of these drugs is justified by their special pharmacological and pharmacokynetic properties.

3. It has been not iced that in combination these drugs intensify each other and, furthermore, decrease their adverse reactions. Owing to the intensifying effect, very small doses can be used. This avoids adverse reactions and high costs.

4. We present an analgosedation method well tolerated by most patients, with minimal side effects, rapid recovery, and immediate use, avoiding undesired effects and high costs.

Analgosedation must be started at the site of the accident simultaneously with cardio-respiratory resuscitation and continued during the patient's transport. In hospital, it is necessary during invasive investigation and treatment procedures, intra- and postoperative.

We suggest the production of a previously loaded syringe containing balanced combinations of:

- Ketamine or Ketamine S + Midazolam

- Ketamine or Ketamine S + Propofol.

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THE INFRACLAVICULAR ACCSESS TO THE BRACHIAL PLEXUS - AN ULTRASONOGRAPHIC AND ANATOMICAL STUDY

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The adequate anesthesia in the hand surgery plays an important role for the conducting of the procedure. Nowadays, the brachial plexus block seems to be the method of choice. Although the infraclavicular approach to the brachial plexus was described many years ago and the majority of the handbooks contains the description of the techniques of infraclavicular brachial plexus anesthesia, the anesthetists choose rather the axillary and interscalene approach, which are supposed to be safer. The study we undertaken aimed to describe the topography of the infraclavicular part of the subclavian artery, subclavian vein and the brachial plexus, their relations to the skin and the pleura using the noninvasive methods of visualization - ultrasonography, which may be used on patients before the procedure. We examined 40 infraclavicular regions in 20 patients (10 males and 10 females) using the 5 MHz linear transducer. The position of the transducer was estimated according to the topographical landmarks for the infraclavicular approach described by Kilka (1995), which are, in our opinion, the best determined. Of course, it is impossible to visualize the brachial plexus itself, but the subclavian artery and the subclavian vein are very easy to see. According to the anatomical data, the position of the plexus may be foreseen to be placed laterally to the artery. Five parameters were measured: distance between the surface of the skin and the pleura, between the skin and the subclavian artery, diameter of the subclavian artery, distance from the artery to the pleura and distance from the skin to the pleura 5 mm laterally to the subclavian artery. One has to remember, that the infraclavicular approach is, from the anatomical point of view, the modification of the axillary approach. Our results confirm this suggestion. The border of the pleura runs medially to the point of puncture and on this level there is about 40 mm distance between the skin and the brachial plexus. This fact makes, in our opinion, the infraclavicular approach safe to perform. Additionally, the close relations between the branches of the plexus in this region are the reason of the satisfactory sensory and motor block.

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SCANNING ELECTRON MICROSCOPY STUDY OF THE HUMAN LUMBAR DURA MATER

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Commonly accepted method of the regional anesthesia - the spinal anesthesia needs the puncture of the dura mater. Traditional descriptions suggest that human dura mater is composed of one or two layers of the fibrous bunches. We studied 20 cuttings of the lumbar dura mater (LDM) explanted form the cadavers (unfixed and fixed) available at our Departments. Using the procedure described by Ohtani et al. (1988) the lumbar dura mater after fixation in 10% buffered formaldehyde solution the maceration in 10% NaOH solution (20°C, 7 days) was performed. Thereafter specimens were fixed in 1.5% tannic acid solution (overnight) and then post-fixed in 1% OsO_4 solution. After dehydration in graded series of ethanol the specimens were air dried. Coating with Au was performed using the JEOL JFC-1100 coater and specimens were observed in scanning electron microscope JEOL JSM-35C (25-35kV). Following observations have been made: 1. surface of the LDM is composed of two layers: external and internal superficial laminae; 2. under these superficial laminae two deep layers were found: external and internal deep laminae. The configuration is symmetric on external and internal side of the LDM and the internal deep lamina is the central, single membrane. Several intralaminar fibers were observes between the deep layers on the LDM. The external laminae are composed of thin fibers organized in thin bundles (external superficial) or of the chaotic, thin fibers (internal superficial). In opposition, the deep layers are composed of thick multifibral, spliced bundles. Each bundle is wreathed with fine fibers.

Obstruction of the punctured LDM observed by other authors may be caused not by contractile cell elements but by restoration of the configuration of the collagen fibers of the LDM. This fact may be important for understanding the mechanism of anesthetic agent penetration during the simultaneous spinal and epidural anesthesia.

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DUPUYTRENS'S CONTRACTURE - AN APPRAISAL OF RESULTS OF SURGERY FOR SEVERE JOINT CONTRACTURES

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Severe proximal interphalangeal joint contractures in Dupuytren's Contracture present a most difficult problem to the surgeon.

Even after brilliant surgical excision of the Dupuytren's tissue there are inevitably two remaining problems.

Firstly, shortage of skin when the joint is fully extended and secondly, the maintenance of the correction of the joint contracture postoperatively.

Over nearly 10 years and 250 cases the results of surgery of Dupuytren's Contractures at the Department of Orthopaedics and Traumatology at the Medical University in Plovdiv, Bulgaria have been reviewed.

The results of surgery will be presented as pre- and post-operative joint measurements, including the preferred skin incisions and rotation flaps.

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EXTERNAL FIXATION OF OSTEOARTICULAR HAND INJURIES

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The use of miniature external fixators may be of great help for the treatment of a varied spectrum of simple or complex hand injuries.

The experience at the Department of Orthopaedics and Traumatology is being studied, cases are presented and functional results are evaluated.

External fixation produces a temporary bone bridge around the surgical traumatic or degenerative focus without penetrating into it and if necessary it permits prolonged or multi-staged surgery and the separate treatment of different tissue injuries. It is very stable and permits early active movement of the joints, minimizing the possibility of complications such as joint stiffness, adhesions or chronic pain.

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ARM PARAARTICULAR RHEUMATISM

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ABSTRACT:
Paraarticular rheumatism (PAR) is a kind of rheumatism which grabs stractures out of external joint covering. That disease is very difficult to recognise from the doctor´s side and also to treat it in a regular way.
The aim of our study is to follow frequences of different way of treating.
During the period from december 01st. 1994 to december 01st. 1995 at the Ortopedic Clinic of Niš, there were 388 patiens with arm PAR.
The most frequent form were periarticulitis humeri 127 (37,73%) and epicondilitis humeri 85 (21,90%).
In patients treatment we apply classic therapy (rest, analgetics, antirheumatics) and depo-cortico therapy (Lemond-Solu) which we repeatedly applied direct in focus.
Depo-cortico method has shown better results. The treatment time of depo-cortico therapy is 14 days shorter in relation to classic treatment, and that treatment didn´t give any side complications and relapsing.

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SEVERITY OF MITRAL INSUFFICIENCY AS PREDICTOR OF ARRHYTHMIA IN MITRAL VALVE PROLAPSE

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The aim of this study was to investigate the influence of severity of mitral regurgitation (MR) on prevalence and severity of arrhythmia in patients with mitral valve prolapse (MVP).
We compared three randomly chosen groups of patients with MVP: A: 50 patients without mitral regurgitation, B: 50 patients with moderate mitral regurgitation, C: 50 patients with severe mitral regurgitation. All patients were examined using color flow Doppler echocardiography and ambulatory echocardiography.
Significant difference in the prevalence and severity of atrial and ventricular arrhythmia was found between groups A and B ($p<0.05$), and also between groups A and C ($p<0.01$). It was not found significant difference in the prevalence of arrhythmia between groups B and C, but patients from group C had more complex ventricular arrhythmia.($p<0.05$). There was no significant difference in the prevalence of frequent and complex ventricular arrhythmia between patients with anatomic MVP and patients with functional MVP complicated by MR of comparable hemodynamic degree.
CONCLUSIONS: This study shows that presence of moderate or severe mitral regurgitation in patients with MVP could be used as predictor of frequent and complex atrial and ventricular arrhythmia. There is significant difference in number of complex ventricular arrhythmia between MVP patients with moderate and severe mitral regurgitation.

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POSTINFARCTION PSEUDOANURYSM - A CASE REPORT

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Pseudoaneurysm of the left ventricle (LV) most often occurs after transmural acute myocardial infarction (AMI), when cardiac rupture is contained by pre-existing pericardial adhesions. Surgical correction of this condition is a high risk and very complex procedure. We report a case of 70 years old man who experienced AMI in 1977. Subsequent coronarography revealed isolated proximal stenosis of the left anterior descending artery (LAD) and distal atheromatous changes. Ventriculography showed no ventricular enlargement. The same year coronary artery bypass graft surgery was performed with a single venous graft on LAD, and the pts was on vasodilators and antiaggregates with no complains until 1993, when chest pain started to appear during exertion and later on also at rest. On January 15th, 1995 he felt severe retrosternal pain and fainted. The diagnosis of diaphragmatic AMI with right ventricular involvement was established. The clinical course was complicated by appearance of global heart failure, transient absolute arrhythmia, ventricular extrasystolic arrhythmia, and transient prerenal failure. Echocardiogram revealed a large pseudoaneurysm (11.4 x 7.4 cm) of the posterior wall of the LV. Hemodynamic evaluation confirmed a false aneurysm superimposed on a true aneurysm of the posterior LV wall. Surprisingly, 17 years "old" venous graft had very satisfactory flow, with a minor distal stenosis. The surgical correction was based on the pseudoaneurysm neck closure by Dacron patches. Post-operative course was without serious complications, and one year after the surgery he has only moderate congestive heart failure, without rhythm disorder, but with increasing LV size (true aneurysm).

In conclusion, we reported a case of successful correction of a large post AMI, LV pseudoaneurysm. Our case confirms a mandatory operative treatment of pts with false aneurysm in spite of a significant mortality of this procedure reported in the literature so far.

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RELATION OF THE EXERCISE-INDUCED MITRAL REGURGITATION AND MORBID CARDIOVASCULAR EVENTS IN PATIENTS WITH MITRAL VALVE PROLAPSE WITHOUT MITRAL REGURGITATION AT REST

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Risk factors for complications among patients with mitral walve prolapse include older age, male gender and the presence of a mitral regurgitation The purpose of this study was to evaluate the relation of the exercise induced mitral regurgitation and morbid cardiovascular events in patients with mitral valve prolapse but without mitral regurgitation at rest . We examined 50 those patients, using supine bicycle ergometry and color flow Doppler echocardiography in the long axis and apical four chamber views. Prospective follow up study was performed. Exercise induced mitral regurgitation was observed in 15 (30%) patients. During prospective follow up (mean 24 months) more morbid cardiovascular events were noticed in the group with than without excercise induced mitral regurgitation. and included:, syncope (37% vs. 7%, $p < 0.0001$), congestive heart failure (11% vs. 1%, $p < 0.005$) and progressive mitral regurgitation requiring mitral valve replacement surgery (8% vs. 0%, $p < 0.05$). Other morbid cardiovascular events including sudden death were rare CONCLUSIONS. The incidence of the exercise induced mitral regurgitation in patients with mitral valve prolapse without mitral regurgitation at rest is 30%. There is significantly difference in number of morbid cardiovascular events in the group with than without exercise induced mitral regurgitation.

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INFLUENCE OF LONG TERM TREATMENT OF ENALAPRIL ON VENTRICULAR HYPERTROPHY IN SYSTEMIC HYPERTENSION

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The aim of this study was assessment of the role of enalapril in the regression of left ventricular (LV) hypertrophy in patients with systemic hypertension. We prospectively followed at mean of 36 months (28-38) 52 patients (63%males, mean age 54) with systemic hypertension after enalapril monotherapy (10-20mg/day). Echocardiograms of the LV were obtained before and at a mean of 36 months after treatment. We noticed that enalapril significantly reduced both systolic and diastolic blood pressures (BP) by a mean of -38 mmHg and -19 mmHg, respectively. Left ventricular mass was significantly reduced by a mean of -17%, associated with a decrease in LV posterior wall thickness and end-diastolic dimension. LV ejection fraction and fractional shortening were not significantly changed in our patients. According to these results we may conclude that enalapril monotherapy may cause regression of LV hypertrophy in systemic hypertension.

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CARDIAC REHABILITATION OF PATIENTS FOLLOWING SUCCESSFUL PTCA AND CORONARY ARTERY BYPASS GRAFTING

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Cardiac rehabilitation is a growing discipline in Medicine. In the past two decades, it has been broadened to include not only patients with Ischemic heart disease (IHD) and acute myocardial infarction (MI) but also patients with other types of cardiovascular disease, as well as those recovering from coronary angioplasty (PTCA) or open heart surgery. The aim of this study was to evaluate beneficial effects of cardiac rehabilitation program of patients following successful PTCA and aorto-coronary bypass surgery. This study includes 40 patients (15 after PTCA and 25 after open heart surgery treatment) with a complete cardiac rehabilitation program (exercise EKG including exercise stress testing and maintenance therapy with anticoagulants and other cardiac medications such as digitalis, beta-adrenergic and calcium channel blockers). Conclusion: The aim of cardiac rehabilitation is not only to improve cardiovascular functional capacity, hence improving the quality of life, but also to control coronary risk factors, minimising the chance of recurrence and decreasing morbidity and mortality in PTCA and open heart surgery patients.

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VALVE OF THE CORONARY SINUS (THEBESIAN VALVE) - RELATIONS TO THE ORIFICE OF THE CORONARY SINUS

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The region of the orifice of the coronary sinus (OCS) and its valve (Thebesian valve - TV) seems to be one of the most interesting elements of the right atrium. The aim of our study was to estimate the quantitative relationships between the OCS and TV, what as far as we are able to judge may be important in the clinical practice. We investigated 131 human not fixed hearts, aged form 19 to 86 years (avg. 46.5), obtained from the routine *post mortem* examinations performed at the Warsaw Medical School for 11 (from 49) administrative districts of Poland. The OCS (in two axes) and TV (in one axis) were measured. The area of the TV was computed using its geometric formula connected with the ellipse-like shape of the OCS. To assess the percentage of closure of the OCS with the TV the area index (AI) was evaluated in these cases where the TV occurred and computation was possible. Our study revealed that most commonly the AI ranged from 10% to 50% in 64 cases (66.3%). We believe that this fact may explain some technical problems occurring during the catheterization of the coronary sinus especially where the TV is formed as an unfenestrated, semicircular fold of endocardium.

AI range	Number of cases
< 5%	3 (3.06%)
5% - 10%	2 (2.04%)
10% -50%	64 (66.3%)
50% - 70%	17 (17.3%)
> 70%	12 (12.2%)

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CLINICAL AND MORPHOLOGICAL ASPECTS OF ATRIAL NATRIURETIC FACTOR SECRETION IN ARTERIAL HYPERTENSION

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According to the recently published data in severe arterial hypertension ANF (atrial natriuretic factor) plasma concentrations are elevated, while in mild hypertension there was no such increase of ANF level. We examined effects of arterial hypertension and coronary arterial disease on ultrastructure of human right atrial cardiocytes and secretion of ANF. We evaluated 5 patients with arterial hypertension and coronary arterial disease. The samples of right atria were taken during the heart operation and were prepared in a routine way for ultrastructural observation. In our patients we found increased level of ANF in serum and hypertrophy of atrial cardiocytes. Predominant characteristics of examined cardiocytes are numerous extremly developed stacks of Golgi apparatus and great number of ANF granules. Myofilament bundles are irregularly arranged and somewhere disintegrated. Our results indicate that in arterial hypertension and coronary arterial disease principal function of right atrial cardicytes is secretion of ANF, while their contractile function is highly impaired.

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PREMATURE VENTRICULAR BEATS IN CHILDREN: CIRCADIAN DISTRIBUTION ANALYSIS IN SELECTION OF TREATMENT WITH PROPRANOLOL

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Clinical decision to treat premature ventricular beats (PVBs) in children in often tedious and requires serious consideration. Therefore, the aim of our study was to estimate the usefulness and applicability of PVBs circadian distribution analysis on selection of initial treatment with propranolol in children with ventricular arrhythmias.

Fifty-one patient (55% male, 45% female, mean age 12.43±4.09 yrs) were evaluated by echocardiography, 24-hour ECG Holter-monitoring, late potentials on SA ECG and exercise test. According to echocardiographic findings, patients were divided in two groups: Group A (19 pts - 37%) with concomitant heart disease (congenital heart disease excluded) and group B (32 pts - 63%) with normal heart on echocardiography. On 24-hour ambulatory ECG, we monitored and compared daily distribution of PVBs with their frequency during night sleep, and sorted out patients with more frequent PVBs during the night (positive night distribution - PND). In group A 13/19 pts and in group B 12/32 pts had PND of PVBs. Parameters for the initial beta blocking treatment were: large number of PVBs (10.000/24 hrs or more) and couplets (100/24 hrs or more), PVBs increasing in number during exercise, presence of ventricular tachycardia (VT). Patients receiving propranolol (2mg/kg/24 hrs) after two weeks underwent control Holter-monitoring. Parameters for successful treatment were: reduced number of PVBs for at least 60% and withdrawn VT. Fourteen pts were treated in group A. Eight pts did not benefit from beta blocking treatment, (7/8 pts had PND). Out of 14 pts, 6 were successfully treated, only one had PND (Fisher exact test: P=0.016). In group B, for 12 pts propranolol was prescribed, and in 5 of them beta blocking treatment failed (all had PND). Seven out of 12 pts were successfully treated, only one had PND. (Fisher exact test: P=0.008).

We concluded that patients with frequent PVBs during night sleep had worse response on the beta blocking treatment than those without (or less frequent) presence of PVBs during night sleep. Accordingly, analysis of PVBs circadian distribution could be useful in proper selection of beta blocking treatment in children with ventricular arrhythmias.

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CARDIAC TAMPONADE AS A PRESENTING MANIFESTATION OF PULMONARY CARCINOMA

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Cardiac tamponade is a rare initial presentation of malignancy and from 1935-95, only 78 cases were published. We report the case of a 27 yrs old female, non-smoking pt, that presented with acute worsening of dyspnea after only six-day history of exertional dyspnea, fatigue and pain in the left leg. On examination, she had tachycardia, soft heart sounds, distended neck veins, hepatomegaly, edema and tenderness of the left leg, and hypotension. Electrocardiogram revealed low voltage and electrical alternans. Chest X-ray showed a globular, enlarged heart with significant right and small left pleural effusion. On echocardiography, there was a large pericardial effusion with features of tamponade and 1000 ml of hemorrhagic fluid was aspirated. Cytology demonstrated neoplastic process of epithelial origin. However, hematology, immunology, echo of the thyroid gland, abdominal echo, and the examination of the breasts were normal, no lymphatic glands were enlarged and Mantoux test was negative. Nevertheless, ultrasonography revealed a collection 40x75 mm around the right ovary that surprisingly disappeared afterwards (hematoma due to heparin given for paraneoplastic thrombophlebitis). This was confirmed by abdominal CT examination and laparoscopy. Finally, after a month of rather asymptomatic course, right hillary circular shadow on chest X-ray occurred and bronchoscopy revealed slightly enlarged right lobar carina, but uncertain signs of expansive process and non-specific biopsy findings. Bilateral pleural effusion persisted and aspiration and Abrams biopsy at the left side was consistent with adenocarcinoma of the lungs. CT of the chest showed two irregular proliferations, one in the right hilary space (4 cm) and the smaller one (1 cm), near to the left parietal pleura. Chemotherapy was introduced with two runs of Cisplatin/Vinplastin with 30 days pause. The first run of cytostatics was well tolerated and the pt was discharged home in good condition. Echocardiograpy on discharge (80 days after onset) revealed pericardial effusion of 1 cm in diastole in front of the RV, but cardiac tamponade never recurred. After 18 days she died during the night (CVI?).

In conclusion, cardiac tamponade is a rare initial presentation of the pulmonary carcinoma and only 78 cases were reported in the literature so far. Our case also confirms poor prognosis in pts with malignant cytology in the pericardial effusion in comparison to patients with malignancies and pericardial effusion without neoplastic cells.

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The problems of psychotherapy in general medical practice.

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At present, due to worsening of social and economic conditions, national conflicts, there is a tendency to increasing of population's neurotization. In this connection the psychotherapeutic service is of great importance in the activity of doctors with general medical practice. All these facts stimulate the search of new methods and forms of active exposures, prior diagnosis, treatment and rehabilitation of patients, suffering from neuropsychic mental disorders. That's why it is very important to discuss the question of organising of psychotherapy service in independent region as well as among the doctors with general medical practice. Especially important aspect in the question of organising psychotherapy service is the aspect of children contingent and teen-agers, who are exposed to neuropsychical disorders due to age psychics lability.

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ANOREXIA MENTALIS UNSOLVED MISTERY

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Anorexia mentalis is a disease of unclear etiology, with various incidence in the world, mostly linked to civilized countries. It is within the psychoneuroendocrinology domain and is probably caused by the inborn error of metabolism of neurotransmiter serotonin, thus bringing up the tide of endogenic opiates in the central nervous system. The diagnosis is based upon the willingly emaciation, behavioral changes and secondary amenorrhoea (in the girls). The unsolved etiology, different incidence, psychiatric distrubances, high intelligence, genetic implications, posssibility for inborn error of metabolism, unknown causal therapy and possibly fatal outcome, favour further research in the field. The ten year period (1985-95) medical documentation of the 20 anorectic patients of the Institute of Child and Youth Health Care in Novi Sad was analyzed trough age, sex, height-weight, menstrual cycle, socio-economic family situation, personal characteristics, intelligence, laboratory results and evaluation of the therapy. The portrait of the patients in our experience globally fits into the published data. The difference was that there were no male sex patients and that amenorrhoea i most cases, not the emaciation, was the reason for seeking medical advice. The determination of the 5-hydroxy-indol-acetate (5-HIAA) in urin and its raising in some cases, enables its use in diagnosis and evaluation of the therapy. Poorly understood etiology and unsatisfactory results in the treatment of anorectic patients urge for further investigations.

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PSYCHOSOCIAL AND PSYCHIATRIC ASPECTS OF MARGINAL YOUTH GROUP STUDY

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Introduction: Rendering psychosocial and psychiatric aid to the members of marginal sociocultural youth groups associated to the youth subculture requires the detailed information about their pecularities. The so-called "System" , the youth unformalious organisation, formally similiar to hippie groups presented the centre of youth subculture in the territiory of the former USSR . There have been studied 34 members of this group (14 males, 20 females , aged of 16-25) . **Methods:** The observation method, text analysis reports of group members , clinicocatamnestic data of group member`s hospitalisation to the Tomsk Regional Mental Hospital, psychodiagnostic methods (Kelly`s Test Of Repertory Gratings, Color Lusher`s Test) have been studied as well. **Results:** It was shown that the specific psychosocial phenomena (clearly non-standard model of social behavior, weak sex and social role identification, specific influence of group language to the preferable communicative model) are closely connected with a considerable part of ritual behavior of group members as consulting a psychiatrist. It provides the imitation of non-existing or aggravation of minimal mental disorders though a number of mentally-ill persons is equal to 44% (the very personal disorders as schizoid , schizotypal and histrionic, but 2 cases of severe delusional disorder have been registered). **Conclusion:** Thus , the traditional approaches to the qualification of mental status of the group member demand correction as standard behaviour for the group has a typological similarity with clearly-marked psychopathological phenomena.

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ARTERIAL EMBOLECTOMY IN PATIENTS WITH ACUTE UPPER AND LOWER EXTREMITIES ISCHEMIA DUE TO VALVULAR AND ISCHEMIC HEART DISEASE

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Study proposal: Our study makes a comparison between the embolic events in upper and lower extremities in patients with ischemic heart disease (IHD) and valvular disease (VD).
Material and methods: We examined retrospectively 967 patients who underwent arterial embolectomy for IHD and VD embolization in upper and lower extremities between January 1980 and December 1995.
Results: The main ethiologic factors were atrial fibrillation in IHD and mitral valve disease in VD group.Arterial embolectomy was performed with Fogarty catheter in 461 cases in IHD, in 390 cases in VD and for other situations 116 cases. The mortality was 19.3% in IHD and 14.1% in VD. Limb salvage rate was 70.4% in IHD vs. 80.2% in VD group. Amputations were two times more frequent in IHD (47 patients vs. 22 patients in VD).
Conclusions: Peripheral emboli are more frequent in IHD. The mortality and amputations were higher in IHD. Earlier diagnosis surgical and medical therapy could improve the results.

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DIAGNOSIS OF VOLUMETRICAL PROCESSES IN PULMONARY SURGERY

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At present in diagnosis of volumetrical processes in lung are used not only medical methods, but also physicochemical (calorimetry and differential thermal analysis (DTA)). The purpose of research is development of a new physicochemical method of diagnosis of volumetrical processes in a pulmonary surgery.
During research were conducted: DTA of blood of the healthy people and ill in a range - 190 - + 200 °C; the characteistic temperature areas of relaxation transitions for the blood of healthy and ill patientes are determined; influence of age and sex of patientes, processes of inflammation on the temperature areas of relaxation transitions is revealed; experimental researches of tissues of organs and blood of albino rats with transplanted tumor.
The difference in the DTA- data of tissues and blood of healthy and ill patientes and rats was registered.
At introduction of a developed method of diagnosis in to the medical practice it is possible to expect sharp increase of revealing of volumetrical processes in a pulmonary surgery at early stages and, hence, greater success in treatment and extension of life of patientes.

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VOCAL CHANGES IN PATIENTS UNDERGOING RADIATION THERAPY FOR GLOTIC CARCINOMA OBSERVED BY ENDOVIDEOSTROBOSCOPY

Milisavljevic D

Aim
Vocal analysis was performed prior to radiotherapy and at specific intervals throughout the radiation therapy program by endovideostroboscopy.

Material and Method The study included 8 male patients who had T1 and T2 epidermoid carcinoma, treated and cured at University Clinic of Ear, Nose and Throat in Nis, Serbia. in the period from 1993 -1995. There were 5 T1 and 3 T2 in the study group ranging in age from 41-68 years. The majority of patients preseted with smoking and alchol histories. Patients began their radiation therapy approximately 3-4 weeks after biopsy. All patients underwent standard endovideostrobpscopy measurment prior to entry into the study.

Results Hyperemy, unclearness, dry vocal cords were detected by endovideosroboscopy in 5 patients. On the basis of endovideostroboscopy results, it is found that the most often finding of the vibration modus, in patients undergonig radiation for glottic cancer. is in the form of even irregular vibrations in 6 patients. The finding of a shortended vocal cords amplitude was the finding which was most commonly and most often got.

Conclusion The endovideostrobpscopy method is a very successful additional method in diagnosing vocal cords changes. The endovideostroboscopy method is non-invasive atraumatic and technically simple to be done. As being such, it is very usful for the routine clinic use and as, therefore in combination with the other clinic data, inispensable in the larynx diseases diagnosis.

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THE CLINICAL ASPECT OF LATERAL NECK CYSTS

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Lateral neck cysts (LNC) are slow evaluative lesions of the benign nature which can, in time, achieve enormous dimensions. The etiopathogenesis of this disease is still controversial. Thirty patients, 21 males and 9 females age range 22-54 years have been operated for LNC at Maxillofacial Surgery Clinic of Nis University Medical School from 1994 to 1995.

The localizacion of LNC in the neck was in the upper third at 21 patients and middle third along the front edge of sterno-cleidomastoid muscle at 7 patients. In 2 patients, LNC were supraclavicular localized in the level of the back neck triangle. LNC(s) were present more trequently on the right than on the left side of the neck. Palpably, in most patients, LNC appeared as painless soft and elastic tumefaction, while at 3 patients it was solid, painful and inflamed. During the preoperative period, all the patients were clinically and ultrasonografically examined. In 2 cases, with supraclavicular LNC position on the back neck triangle, the additional CT-scan on the neck was made.

After cyst extirpation, the operative material has been macroscopically and pathohistologically examined. In most cases, cystic wall was smooth and cystic cavity filled up with liquid seromucous content except at 1 patient, where the matter was a solid cyst filled up with the caseo-necrotic content. Pathohistologically, the cystic internal surface was coated by the following epithelium: planocellular in 27 patients, cylindric in 2 patients and mixed in 1 patient. Cystic wall, in most cases, was constituted by the lympatic tissue with a few germinate centers.

The potential pathogenic origin in the relation to clinical presentation, localization and surgical access of such lesion like LNC, has been discussed.

It has been concluded that preoperative preparation in the sense of the adequate diagnostics, infection eradication along with pedantic surgical technique and obligatory pathohistological examination are the priority in the treatment of LNC.

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THE MICROWAVE RADIOMETRIC TECHNIQUE AS A METHOD TO EVALUATION BREAST TUMORS

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The difficulty encountered in diagnosing the early stage of breast cancer requires a continuous search for diagnostic methods permitting the detection of early progression of the disease.

The aim of this study was to determine the sensitivity of microwave thermography in the diagnosis of benign and malignant tumors of the mammary gland.

The study included 112 women with tumors of the mammary gland. In addition, 47 women without any lesions of the breast were examined. The age of the women ranged from 31 - 70 years.

Microwave radiometry at a frequency of 1.5 GHz has been investigated for a non-invasive thermometry. The sensitivity of the thermograph is less than 0,1K with the measurement time being of the order a few seconds. The results were recorded on IBM Pentium-75 computer adapted for this purpose. The lesions in the mammary gland were classified according to size and histological patterns. The results obtained were compared with the mammography picture and checked by fine-needle puncture and histologic examinations.

In all the women, in whom further diagnostic procedures revealed invasive cancer of the mammary gland, a marked difference in the tempe- ratures recorded over the lesion was noted. The agreement of the results of microwave thermography with those of the histologic examination was evaluated as 87.5%. Whereas the agreement of both microwave termography and mammography with the histologic examination was greater - 89%.

The authors consieder microwave thermography to be of value as in screening method in the prophylaxis of breast cancer.

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OPERATION OF SNORING

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Aim The aim of our study was to present our results from operation of patients who suffer from snoring.

Material and Method In the examined groupe there were 3 patients, underwent to uvulopalatopharyngoplasty for habitual snoring. They had also documented sleep apnea.

Result Snoring was presented to have stopped completely in all 3 patients. The quality of sleep apnea was reported to have improved.

Conclusion Snorers and their partners consult physicians about the problem. The majority of patients accept a surgical treatment approach what enables patients suffering from this disease to continue their lives normally.

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PERITONSILLAR ABSCESS CURRENT MANAGEMENT

Bozic D, Milisavljevic D, Jankovic D, Jovanovic J, Radovanovic Z,

Aim Our aim was to show current managment for this disease.
Material and Method There were 35 patients with peritonsillar abscess in the examine group. 22 were male and 13 female. We continue to use incision and drainage at our ENT clinic in Nis, Serbia, to threat this disease. All our patients with peritonsillar abscess were underwent to incision and drainage. They were treated after that with large doses of intramuscular penicllin every six hours. Incision of the peritonsillar abscess was done under local anesthesia with the patient in the sitting position.
Result The peritonsillar abscess was unilateral, the accumulating pus displaced the tonsil medially and backwards so that the swollen soft palate obscured the tonsil. The uvula was displaced across the midline and only the affected tonsil was visible.
Conclusion There is a great need for better understanding of peritonsillar abscess treatment. The result of the present study clearely show that incision and drainage are effective in suppressing peritonsillar abscess. Subjectively, 33 of these 35 patients have been improved after undergonig excision of their peritonasillar abscess. We advocate this surgical approach to the peritonsillar abscess.

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INTRACRANIAL COMPLICATIONS OF SINUSITIS IN CHILDREN

H.Liakou, D.Milisavljevic, J.Jovanovic, Z.Radovanovic, D.Jankovic

Intracranial abscesses in childhood occur infrequently comprising fewer than 25% of brain abscesses in the general population.
AIM The study presents our results of intracranial complications of sinusitis in childhood. The examination was carried out at University Clinic of Ear, Nose and Throat in Nis, Yugoalavia.
Material and Method There were 115 children between 1990-1995 admitted to University Clinic of ENT in Nis, for treatment of sinusitis, out of which 51 were male and 64 female.
Results 3 of the 115 patients admitted for treatment of sinusitis had intracranial abscesses. The average duration of symptoms prior to initial presentation was 9 days. All 3 patients complained of a headache at the time of admission. A common phisical finding in all patients was tenderness to percussion over the fronatal bone.
Conclusion The objectives of this study was to determine the incidence and outline current manegment of intracranial complications of sinusitis in the pediatric population.

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THE VALUE OF COPUTED TOMOGRAPHY IN PATIENTS SUFFERING FROM OROPHARYNGEAL CARCINOMA

Radovanovic Z, Milisavljevic D, Stevanovic A, Jovanovic J, Jankovic D,Liakou H

Aim The aim of our study was to assess the value of computed tomography in patients suffering from oropharyngeal carcinoma.
Material and Method There were 15 patients in the examined group out of which 11 were male and 4 female. Age limit were ranged from 39 to 61 year.
Result Computed tomography of 15 patients suffering from oropharyngeal carcinoma were compared with clinical tumor descriptions, operation and pathology reports. All this was done in order to assess the role of computed tomography scanning.
Conclusion In conclusion, computed tomography scanning is a usful tool in the diagnosis of patients suffering from oropharyng carcinoma. It has proved as a suitable and important diagnosis of such changes.

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NUCLEOLAR ORGANIZER REGIONS IN SURGICAL AND ENDOSCOPIC SAMPLES OF GASTRIC ADENOCARCINOMA

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Nucleolar organizer regions (NORs) are loops of ribosomal DNA which ere present in the nucleoli of cells and which transcribe to ribosomal RNA. Associated with these NORs are argyrophilic acidic nonhistone proteins that have allowed the demonstration of NORs by the use of an argyrophilic method (AgNORs). The aim of this study was to establish the mean AgNOR count in gastric adenocarcinoma. Tumor tissue samples obtained surgicaly (n=12) and endoscopicaly (n=16) were analyzed. Sections 4 μm thick were cut and dewaxed in xylene. The AgNOR staining solution was prepared by adding one volume of 2 per cent gelatine in 1 per cent formic acid to the two volumes of 50 per cent aqueous silver nitrate. The rehydrated tissue sections were incubated for 45 minutes in the dark at room temperature. In the cancerous tissue the mean number of AgNORs was significantly higher in endoscopic samples (4.56±1.60) than in surgical samples (1.93±1.58). We therefore conclude that the mean number of AgNORs in gastric adenocarcinoma is influenced by tissue fixation.

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COMPARATIVE ANALYSIS OF THE VALUE OF THE EXTERNAL FIXATION, PLASTER CAST IMMOBILIZATION AND INTERNAL FIXATION IN TREATING FRACTURES OF THE LEG

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ABSTRACT:
Fractures of the leg are the greaty profesional, medical and financial problem. Their treatment is often the long term one, and it has possible conseqvences.
The goal of this study is to compare the efficiency of treating fractures of the leg by the conventional methods (the plaster cast immobilization) and the internal fixation.
In order to ashieve this set goal we have studied 41 patients with the fractures of the leg. Twenty one patients of these 41 were treated by the method of the external fixation, 10 patients were treated by the method of the internal fixation, and finally 10 patientes were treated by the plaster cast immobilization.
It was found on the basis of the analysed material that the external fixation is the desirable method that should be used in treating both the compound fractures of the leg and the unstable simple fractures of the diafisis of the tibia. When this method is applied it is possible to use less quantity of antibiotics and blood for transfusion, then the treating of patientes in hospitals is shortened and post operative complications are usually rare.

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TRANSCOLONOSCOPIC POLYPECTOMY IN THE MANAGEMENT OF COLONIC ADENOMAS

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Colonoscopic polypectomy is procedure of choice for diagnostic and management of colonic polyps. Colorectal adenomas are precancerous lesions, so transcolonscopic polypectomy is secondary prevention of colorectal carcinoma.

In a five year period in 140 patients, 92 men and 48 women, aged from 29 to 75 years, 196 colonic adenomas were ectomized by snare. After complete colonoscopy to cecum was performed, polypectomy with standard diathermy snares were done.

After removing, polyps were sent on histologic examination. Standard preparation of tissue specimens and hematoxilin-eozin staning was done. In rectum were distributed 80 (40.8%) adenomas, in sigmoid 52 (26.5%), in decending 24(12.2%), in transverse colon 17(8.7%) in ascending 12 (6.1%) and in cecum 11 (5.7%) adenomas. Diameters of adenomas were 5-35 mm (mean diameter 12.3+ 3.2mm).

There were 100 (51%) tubular, 72(36.8%) tubulovillous and 24 (12.2%) villous adenomas. Low grade dysplasia noticed in 70 (35.6%) adenomas, moderate dysplasia in 82 (41.8%), severe dyplasia in 20 (10.2%), and malignant alteration in 24 (12.2%) adenomas. Malignant alteration had 2 tubular (2%), 13 tubulovillous (18%) and 9 villous (37.5%) adenomas. Eight malignant alterated adenomas had submucosal invasion of pedicle, so patients were indicated colonic resection. Remaining 16 malignant alterated adenomas in 14 patients are unedr colonoscopics follow up and without signs for local recurrence or metastasis. Transcolonoscopic polypectomy was the definitive management for 188 adenomas (95.9%).

Conclusion:

Trancolonoscopic polypectomy of colonic adenomas is preventive, therapeutic procedure which reduce the incidence of colorectal carcinoma. It is definitive therapeutic method for the most patients with colonic adenomas, except patients with malignant alteration of adenomas with malignant infiltration of submucosa.

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VENOUS SYSTEM OF THE LATERAL CEREBRAL FOSSA

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Venous system of the lateral cerebral fossa is frequently dissected during surgery of the middle cerebral artery aneurysms and others pathologies of this region. We investigated superficial and deep part of this venous system on the base of dissection of 30 formaline fixed cerebral hemispheres. It was carried out with the aid of the operating microscope and microneurosurgical instrumentation. Superficial venous system is composed of the middle superficial cerebral vein and its tributaries. MSCV was found as a single trunk in 70%. In remaining cases MSCV was composed of multiple trunks. In 18% MSCV anastomosed with Trolard vein. In 42% MSCV anastomosed with Labbe vein. In 40% MSCV anastomosed with both Trolard and Labbe veins. Deep venous system of the lateral cerebral fossa is composed of two parts. Anterior part which drains anterior perforating substance and may be connected with basal vein. This part consists of one vein most frequently and its course is in close topographical relations with perforating branches of the middle cerebral artery. Posterior part is composed of two or three veins which drain insular cortex. These veins are opened to the superficial venous system of the lateral cerebral fossa. The anastomoses between two parts of the deep venous system of the lateral cerebral fossa exist on the level of the limen insulae. During opening of the lateral cerebral fossa and various approaches to the parasellar region there might be necessity to coagulate some parts of the venous system of the lateral cerebral fossa. Our anatomical investigation provides information about possible venous collateral circulation in such cases.

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ULTRASONIC MONITORING OF FRACTURE HEALING, METHOD, MODEL AND IN VITRO STUDIES

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Fracture healing has traditionally been assessed by manual manipulation combined with the evaluation of callus on radiographs. The aim of the study was to evaluate ultrasonic contact method for fracture healing monitoring. Comparison of ultrasound velocity and attenuation were performed along the long bone, across the fracture site on human tibias harvested and macerated. Osteosynthesis methods employing Rush rods, Kuentscher rods, AO plates, Zespol fixateurs and Marchetti elastic rod (Zimmer) were used separately to find its influences on model of fracture healing. Callus formation and remodeling in vitro was simulated by bone cement placing into a osteotomy gap in a middle of the tibia. Ultrasonic transducers of 40 kHz were placed on both sides of the gap. Distance from the gap on both sides was equal. Achieved values of osteomized tibias before and after bone cement consolidation were analyzed by t test. Significant differences ($p<0.001$) were found for all examinated cases.

Table presents results of ultrasonic velocity (SOS) and attenuation (ATT) measured for selected cases.

	SOS without cement (m/s)	SOS with cement (m/s)	ATT without cement	ATT with cement
osteomized tibia without osteosynthesis	1782.53	3355.70	128.4	49.3
ZESPOL external fixateur	2192.98	3435.43	103.5	35.1
Kuntscher rod	1477.10	2557.54	547.5	155.5

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The problems of surgical treatment related to combined deformations of external nose and nasal septum

V. Aznaurian (Yerevan)

The subject of present research is clinicofunctional comparison of postoperative complication's frequency in the case of usual not traumatic methods of reconstructive and rhinosurgical operations, working out of recommendations connected with the right choice of the type of surgical operation and prophylaxis of possible complications. The work provides the results of clinical and functional medical supervisions after 105 patients. For patients from the basic group ultrasonic operating knife was used during the operation, and over the postoperative period endonasal laser therapy was carried out. While observing the course of postoperative period the majority of patients from basic group, it was possible to indicate sharp decrease of inflammatory and dystrophy effects of circumflex tissue already after 2-3 laser therapy seances. Simultaneous implementing of rhinoplastic operations in the case of combined deformations of external nose has been proved to be satisfactory both in financial and social aspects.

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THE IMPORTANCE OF CAPTOPRILIC TESTS IN THE DIAGNOSTICS OF RENAL VASCULAR HYPERTENSION

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Since renal-vascular hypertension is an etiological entity within arterial hypertension wich can be cured adequate therapeutic procedure,dignosing a functional stenosis of the renal artery is of great importance.The self-regulating renal mechanism comprising renin-angiotensin-aldosterone system,by inhibiting the converting enzyme,stops its function /role/ in regulating adequate glomerular filitration due to interruption of the production of angiotensin II. This characteristic is used for introducing the captopril of the converting enzyme medicamentous inhibitor into the protocol of dynamic scintigraphy (radionuclide captopril test) for examintaion of renal function and detection of functional renal stenosis.
The purpose of the paper is to oit out to the significance of short-term effects of the captoprils in examining the renal function and detecting the functional renal stenosis.
A radionuclide caproprilic test test with the 99 mTc-DTPA was run in 20 patients with arterial hypertension of unknown etiology.In certain patients,a lower amplitude of the dynamic curve vascular segment and a decrease of the separate function after the introduction of captoprils were obtained in the dynamic scintigraphy,indicating the renal artery stenosis.

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ATHEROSCLEROSIS RISK FACTORS IN ADOLESCENTS OF HIGH SCHOOLS IN CITY OF BIALYSTOK

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The questionnarial interviews have been perfomed among 4030 adolescents from high schools in Białystok and their parents, which revealed the persons whth atherosclerosis risk factors. The most ofen risk factors in young people are: cigarettes smoking, irregular food taking (especially in boys) and obesity in the girls. Theenvironmental factors have had the growing tendency according to increasing age of the tested adolescents. Positove family history and the concentration of the risk factors in the same persons have been observed. The preventive activity has been supported.

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EXTERIOR FIXATION - MAIN CHOICE IN THE SIMPLE FRACTURE OF TIBIA

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Introduction Simple fracture of tibia represent one of the most frequent fracture in the orthopedics surgery. It is known that for the treatment of simple fracture of tibia exist two methods. One is internal fixation and other one is exterior fixation. According to the data from the recent literature, frequency of postoperative osteitis after internal fixation of simple fracture of tibia is ranged to 11,5%.
Aim The aim of this study was to examine and show frequency of postoperative osteitis after exterior fixation of simple fracture of tibia.
Methods There were 81 patients in the examined group with the simple fracture of tibia, whose were cured applying external fixation , last 2 years at University Clinic of Orthopedics in Nis, Serbia, Yugoslavia.
Results There were 41 male (50,6%) and 40 female (49,4%) in the examined group. The average age were ranged from 14 - 83 years. The universal sister for exterior fixation *Mitkovic Type M9 and M20 * was used in resolving the simple fracture of tibia. In this investigated group it was proven nonexistence of postoperative osteitis.
Conclusion We advocate method of exterior fixation, as a method of choice for threatening and curing simple fracture of tibia with fragment dislocation.-

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JOINT'S CHANGES IN PATIENTS SUFFERING FROM SYSTEMIC SCLEROSIS

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In the recent literature is emphasized benign course of systemic sclerosis.

Aim Our aim was to point out and show frequency of joint changes, radiological examination and relation with the period of disease lasting.

Material and methods There were 25 patients suffering from SYSTEMIC SCLEROSIS in the examined group. Diagnosis of joint changes was made by personal hardship, clinical examination, and indispensable biohumural analysis.

Results Most number of patients was ranged from 51 to 60 years (56%), with most often disease beginning in the period between 41 to 50 years (44%), with the average age of 51,4 years and the average disease lasting period of 11 years. There were 25 patients in the examined group, out of which 2 were male and 23 female. Joint changes were observed in the level of hand by applying x-ray. Resorption of distal phalanges was found out in 14 patients (56%) expressive osteoporosis in 11 patients (44%). Significant correlation with the disease lasting period was noticed in the distal phalange resorption phenomenon (42,8% where disease had been lasting 15 years). Subcutaneous calcinosis was concluded in 16 % examined patients and the presence of cysts and erosion were noticed in 20%.

Conclusion Joint changes in the hand level were evaluated in 25 patients who suffer from systemic sclerosis. Nevertheless, we have concluded most frequent changes in presence of distal phalanges resorption (where exist significant correlation with disease lasting period), noticeable osteoporosis, subcutaneous calcinosis and cysts and erosion presence.

Summary The acquired results suggest the need for systemic examination of destructive joint changes in patients with systemic sclerosis, with the aim of coming to an early diagnosis of their creation which would consequently mean their prompt and adequate therapy.

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PENETRATION OF ^{3}H TIAZOFURIN FROM BLOOD INTO THE GUINEA PIG AQUEOUS HUMOR

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The aim of our study was to investigate transport oe tiazofurin from the blood into the aqueous humor.

The method used was vascular perfusion developed by Zlokovic and his collaboratores. This method is suitable for studying the direct transport from the blood into the aqueous humor, because it supplies the intact barrier up to 20 minutes. It makes possible to study the transport of slow penetrating molecules throgh the barrier.

The results obtained in our study showed that there was a significant penetration of ^{3}H tiazofurin through the blood-aqueous humor barrier. The uptake of ^{3}H tiazofurin obtained in the control group, expressed as volume of distribution V_d, was 3.82 ± 1.04%, 8.29 ± 1.29% and 10.01 ± 0.55% after the 3, 9 and 12 minutes of perfusion, respectively. After addition of 2.7 mmol/l of unlabelled tiazofurin , penetration of ^{3}H tiazofurin decreased significantly.

These results show that there is competition between the ^{3}H labelled and labelled tiazofurin for blood-to-aqueous humor transport. Therefore, this transport can be considered a saturable process.

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NON-CONTACT AESTHESIOMETRY OF THE CORNEA.

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Aim: Usual detectors for corneal sensitivity regularly cause corneal trauma. To avoid this we wanted to improve the tecnique of *non-contact aesthesiometry* and to compare diabetics and healthy persons.

Material and method: Our aesthesiometer is mounted on a slitlamp and generates reproducible air-pulses. The air nozzle is 0.3 mm in diameter, it's distance to the corneal surface 4 mm. Pulse duration is 70 ms, intensity is displayed as pressure (0-70 mbar). The air-pulses can be applicated perpendicular to any area of the cornea.

We examined 2 groups of persons (age 14-80 years): 90 non-diabetic healthy persons and 65 diabetics (35 of them with type I diabetes = IDDM). In the group of IDDM there were 11 persons without ocular changes on fundoscopy, 6 with diabetic retinopathy and 18 who had already undergone photocoagulation therapy.

Results: The corneal periphery is more sensitive than the centre due to an additional thermic stimulation by air at the limbal areas. Both groups showed a decrease of sensitivity with increasing age. Diabetics had a significantly lower sensitivity than healthy persons of the same age, especially in cases of longstanding disease. There was also a positive correlation between ocular affections (retinopathy) and sensitivity loss. Moreover photocoagulation of the retina has a negative influence on corneal sensitivity.

Conclusions: Non-contact aesthesiometry is a proper method for detection of corneal sensitivity avoiding trauma and infection. As diabetics are at higher risk for ocular affections we implement regular measurements, especially after retinal photocoagulation.

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AIDS IN YUGOSLAVIA FROM 1985. TILL DEC 31. 1995.

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The first two cases of AIDS in Yugoslavia were reportrd in 1985. The number of reportrd cases has grown since. By the end of 1995. a total of 523 cases had been reported. The number of patients is expected to rise.

The greatest number of patients contracted the virus by sharing needles for drug abuse with infected individuals (52,77%). The seccond highest percentage of patients was infected trough heterosexuals' intercourse (14,91%). Next are homosexuals and bisexuals (12,00%), followed by the phemophiliacs (9,75%).

Five cases of infected children have been reported. The children contracted the virus in their mothers' wombs from the ionfected parents. 34 college students are reportedly HIV positive.

The Belgrade area has the greatest number of reported cases of AIDS (34,57%) of the total number.

The number of deaths is high (68,64%).

The current AIDS situation in Tugoslavia is not hopeful. The number of cases of the disease in expected to increase.

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LABORATORY DIAGNOSIS OF ACTIVE AND LATENT CYTOMEGALOVIRUS INFECTION IN PREGNANCY

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Cytomegalovirus infections, reinfection or reactivation of latent, are frequntly asymptomatic during pregnency. Under way the asymptomatic episodes of disease may be occured vertical transmision of virus, wich related to congenital infection, with all problems and effects for nowborn and infant.....

Problem with diagnosis of CMV infection are in identification of active infection and the differention between the active infection and rectivation. The diagnosis of active infection can only be inferred from serological date and must be confirmed by virus isolation.

We present results of isolation CMV from cervical swabs and urine, obtained from 68 gravid women, all without clinical sings of disease and nearly the term, compered with results of serological tests.

Virus was isolated from 7 /10,29 % / cervical swabs, and / 2,93 % / samples of urine. Only one women / 1,47 % /excreted virus from urine and cervical secretion. Positive serological results were found in 78,0 % of pregnent women. There were no found a significant differences in the mean titer of specific antibodies between the women with active and latent infection / X2 0,72 $p < 0,05$ /.

The mean geometric titer of anti-CMV antibodies in the sera of women with active and latent infection was 1 1600 and 1 800 respectivelly.

The reactivation of latent infection do not present a good antigenic stimulation for additional production of specific At.

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AN ANALYSIS AND DIVISION OF NASAL POLYPS AND PARANASAL CAVITIES

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A morphological study of the presence and characteristics of nasal polyps and paranasal cavities in the light of possible new etio-pathogenetical processes has been presented.

A determination and differentiation, i.e. a morphological classification of the polyps has been done on the basis of nature of their content.

Polyps have been classified into fibromatous (80%), adenomatous (15%) and angiomatous (5%), considering the possibility of mixed cases, such as fibro-adenomatous, fibro-angiomatous and angio-adenomatous.

Edematization of polyps is considered to be a superposition of the essential process, which is contradictory to the findings of the other authors in the references (Kakot and Hirada, 1987). An analysis of the hystological structures of the polyps has also been done, where a hyperplasia of the cup-like cells, a cystical transformation of the mucous glands ducti, stroma edematization and emphasized mucous secretion of greater viscosity have been found.

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BRONCHOMUNAL IN CHRONIC BRONCHITIS THERAPY

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In this study we presented clinical experiences and results that were obtained during the application of Bronchomunal and Bronchomunal P in 58 patients (37 adults and 21 children) with chronic bronchitis. Therapeutic results in our patients were classified as "good", "modest" and with "no results". Therapeutic efficiency of Bronchomunal in our patients was compared to the control group (20 adult patients with chronic bronchitis treated by antibiotics, bronchodilatators and expectorants). In combination with antibiotics, Bronchomunal leads to the significant improvement of clinical symptoms and reduction of number and intensity of acute attacks of disease. The application of Bronchomunal and Bronchomunal P bring to the statistically significant increase of the mean value of immunoglobulins, T-lymphocytes and other immunological parameters.

These results, as well as the other advantages, make Bronchomunal the medicine of the main importance in therapeutic treatment of the chronic bronchitis.

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AN IMMUNOFLUORESCENT STUDY OF THE POLYPS OF NASAL AND PARANASAL CAVITIES

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The immunofluorescent examination of the polyps of nasal and paranasal cavities showed a positive IgG finding of different intensity,predominantly in stroma cells.This can not be considered as usual,since it was not linked to a specific structure of predilection site(the bordering area between stroma and epithelium).Such a finding has been interpreted in terms of an unspecific response to the present inflammatory process,which was previously verified by means of light-microscopy stains.The absolute IgM-negative and IgG-positive finding confirms the chronicity of the proces of nasal and paranasal cavities' polyposis,including possible long-lasting and recurrent back ground infections.

The high percentage of C3b positivity,especially within the pronounced Ig response,suggests the existence of the striking humoral reaction (numerous plasmocytes,histologically verified).Such immunological constellation,which is consistently repeated in most of the subjects,presupposes the existence of some kind of trigger to the effectory immunological mechanism-a repetitive infect.

The metaplastically changed epithelium of the polyps of nasal and paranasal cavities is no longer able to extrovert the secretory IgA,which accounts for the absolute IgA-negativity of the samples examined. Due to the absence of the surface IgA,the epithelium is deprived of its primary and probably the most reliable defence-line.Such epithelium is prone to numerous and reccurent infections,so that IgG-C3b-mastocyte-eosinophil-IgA chain is bound into a continuous ethiopathogenetic cycle.Nevertheless,no serious disorder,in respect of the regulation of the immune response is assumed to exist

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THE INFLUENCE OF HYPERTROPHY IN HYPERTENSIO ON THE CONTRACTILE FUNCTION OF LEFT VENTRICLE DURING THE AIM

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It has been well known that begs ventricular hypertrophy may prevent remodelling after acute myocardial infarction(AIM). The objective of aur study was the estimation of the protective function of hypertrophy in preventing a dis order of the contractile function(CF)of left ventricle (LV).

CF of LV was examined in hypertensive who had suffered the AIM.The research included 5o patients divided in two groups according to the presence (2o),i.e. the apsence of the hypertrophy of myocard(3o). CF was estimated by the usage of WMS.

The optained result showed a statistically considerable difference of WMS in patients without the hypertrophy LV($p<0,01$).

The result of aur research pointed to a fact that the hypertrophy of LV does not prevent the decrease of CF of LV during the AIM.

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EPIDEMIOLOGICAL CHARACTERISTICS OF HEPATIS VIROSA "C"

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Hepatis virosa "C" is virus disease whose cause has been found in 1989. j. by Qui-Lin Choo . Virus was registered in community . This phenomenon demands an epidemiological research work to establish origin, way of infectioning and it demands taking steps .

Methods that have been used in this work are :

Epidemiological questioning of people who got ill - laboratory fortified, without symptoms of disease and epidemiological inquiry (interview) as well as laboratory antibodies tests ;

Entirely they have been 50 cases examined . Beside mentioned hepatis virosa "C" there are also hepatis virosa "A"&"B".

Part (round 30%) of all cases can be connected with haemodyalisis of patients with chronic damage of kidney . Another part of infected have mentioned using intravein method of taking drugs in non-sterile conditions also. There are infected among who it wasn't possible to determine way and place of infectioning by method of epidemiological questioning . Results are pointing at " new problem in this community" which, considering epidemiological problems, problems of diagnostics and medical treatment, must interest sanitary service and doctors for monitoring and possible fighting this infection.

Hepatis virosa "C" is a new disease in Nis. Every year there are quite a few cases. Way of infectioning is different, but it is connected with haemodyalisis, using drugs and for insufficiently fortified ways of spreading. Diagnostics, medical treatment as well as preventive measures are problem that demands constant monitoring of epidemiological situation for better learning of this problem.

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INTRA-VENOUS DRUG ABUSERS AND HCV INFECTION

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Mentor: Prof.dr. LJiljana Konstantinović

In our work are shown clinical, biochemical and serological chara cteristics of chronic HCV infection in intra-venous drug abusers who was under treatment on Clinic for Infectious Deseases in Niš in time period of 5 years. 40 drug abusers are followed, 32 men and 8 women, who had chronic C hepatitis. Average age was 24,71 years for men and 21,14 years for women.
Mean lenght of IV drug using was 5,71 years for both sexes. All patients was symptoms free at presentation, sent on a control follow-up from Mental Health Insitute, Department for drug addiction deseases. In liver function tests there was increased aminotransferases activity AST (mean 89,43 U/L) and ALT (mean 117,28 U/L). Total bilirubin was also increased with an average of 53,75 mmol/L, while direct bilirubin values was normal. In protein electroforesis is noticed increase in gamma fraction with an average value of 0,187. From total number of patients 58,37% had hepatomegaly and 35,91% had splenimegaly. Although HCV infection is often accompanied by other parenterally transmissive viruses as VHB, VHD, HIV, CMV in our work markers for HBV infection had 2 and only 1 patient had HIV infection. Because of raised aminotranferases activity and possible evolution of disease in liver cirrhosis and hepatocellular carcinoma, serological, biochemical and clinical progression of the disease should be carefully monitored. It should be taken all appropriate educative measures for prevention of HCV infection in risk groups.

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COGNITIVE DISTURBANCES AMONG PATIENTS WITH AIDS

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BACKGROUND: Investigations about psychiatric disorders among patients with AIDS show a controversial result about prevalence of mental disorders in sample of HIV-1 infected persons. Some of them concluded that HIV-1 infection per se is not associated with increase risk of psychiatric disorders, but some of them show significance of the psychopatological complications of symptomatic HIV-1 infection. In this study we aimed to assess the cognitive disturbances among patients with AIDS.

SUBJECTS: In this study subjects were symptomatic HIV-1 seropositive persons (hospitalised patients with AIDS).
METHOD: Data collection included three modules: 1.)Sociodemographic survey (which collected informations about sex, age, marital status, ages of education and HIV-1 at-risk group informations); 2.)Laboratory tests; 3.)Psychiatric assessment (which included Standard Psychiatric Interview and Brief Psychiatric Rating Scale to assess current psychopathological phenomenas and Mini Mental Test (Folstein & Folstein 1975.) to assess present cognitive status of our patients).

RESULTS: This study reports the results about current psychiatric status and cognitive disturbances among our sample of hospitalised patients with AIDS.

CONCLUSION: Results of our investigations suggests that patients with AIDS may need professional psychiatric help which depends of their current mental status.

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EPIDEMIOLOGICAL CHARACTERISTICS OF NARCOMANIA IN NIŠ (East Serbia)

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The aim of this investigation was to determine some basic epidemiological characteristics of narcomania in Niš.

Reported cases of hospitaly treated drug addicts were the basic material for analysis and descriptive epidemiological method was applied.

In the period 1990 - 1993. a total number of 175 hospitaly treated drug addicts were registred in Public Health Center in Niš. All registred patients were treated in the Clinic for menthal disorders. The most of drug addicts begin to use different type of drugs between 15 - 24 years of age (males between 20 -24; females between 15 - 19 years). In the predclinical phase of disease there were 18,8%, in clinical phase without complications, there were 50,3% and with some complications (e.g. hepatitis B) 24,6%. 91,3% drug addicts decided by their free will to start medical treatment, 2,3% by doctor preposition, and 4% by family members preposition. In 9,7% of drug addicts one of more members of his family (brother, sister, spouse or father and mother) were drug addict too. The most of patients become addicted to morphine drug type (ICD 304.0). The greatest percentage (45,4% of drug addicts abused different drugs for 4 years, 36% used drugs for 5-9 years, but there were 4% abusers that used drugs over 20 years or more.

The greatest number drug addicts were unemployed persons, pupils and students, which means that the narcomania is complex problem of whole society.

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MULTIRESISTANCE OF UROISOLATED PSEUDOMONAS AERUGINOSA

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Mentor: Doc. Dr Milena Petrovska
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Resistance to antibiotics is a common feature of Pseudomonas aeruginosa. Urinary tract infections (UTI) with that bacteria are associated with instrumentation and /or hospitalization. The aim of this paper was to determine the incidence of multiresistant Pseudomonas aeruginosa uroisolated from hospitalized patients and outpatients at Urological and Nephrological Clinics and to compare the resistance of the strains to some antibiotics in two different periods (3 years). Susceptibility testing of 97 Pseudomonas aeruginosa strains was performed by diffusional in vitro method , using antibiotics discs produced at Torlak-Belgrade. The following antibiotics were tested: Ceftazidim, Ceftriaxon, Piperacillin, Gentamicyn, Amikacin, Ciprofloxacin, Chloramphenicol, Trimetroprim, Imipenem, Pipimid.Asid, Nitrofurantion, Nalidik.Asid, Norfloxacin. The incidence of multiresistance of the strains at the tested Clinics was statistically not different in the two examined periods. The most frequent resistance was detected to 8, 9 and 10 antibiotics. The results showed the most frequent resistance to Nitrofurantoin, Nalid., Pipim. acid and Gentamycin, with statistically not significant increasing of resistance to Ciprofloxacin at Nephrology and Imipenem at Urology, respectively.

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THE ATP-ASE ACTIVITY OF MITOCHONDRION'S OF THE BRAIN AND LIVER IN VARIOUS PERIODS OF HYPOKINESIA

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In the present investigation were shown the results of the influence of various periods of hypokinesia on activity of the Mg^{2+} and 2,4-dinitrophenol (DNP)-stimulated ATP-ases of the mitochondria's of brain and liver. We attempting correct the these changes in the ferments' activity by GABA and pyracetam. Experimental hypokinesia was reach at putting of white rats in the narrow cage-boxes. The ferments' activity was investigated on 15, 30 and 45 days of the restriction of movement activity. GABA and pyracetam were injecting intraperitoneal during 10 days in dose 5 mg per kg. Established, that in all periods of hypokinesia observing visible divergence's in ATP-ases activity in comparative by the intact rats. The changes in ferments' activity have phase character and more significant in that periods of hypokinesia, when have been more pronounced shifts in the metabolic processes. The injections of GABA and pyracetam on the background of hypokinesia cause tendency of the normalisation of activity these ferments' of the mitochondrion's in the brain tissue. The influence of the pyracetam have been more pronounced in comparative with GABA. The analyses of our data's give us basis to consider that GABA and pyracetam have favourable influence on energetically metabolism of the brain and it connects with normalisation of the ATP-ases activity.

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THE INFLUENCE OF CINNARIZINE AND FLUNARIZINE ON THE CONTENT OF PROSTACYCLINE IN VESSEL'S WALL IN HYPOKINESIA CONDITION

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Was investigated the influence of modern calcium antagonists - cinnarizine and flunarizine, on the prostacyclin's level in vessel's wall in early period of hypokinesia. About content of prostacycline in vessel's wall tried by the ability of wash out of the part of chest aorta decreasing ADP-induced (10^{-5}M) platelets' aggregation. Experiments were carry out on 22 white rats, platelets' aggregation was investigated on laser aggregometer "Biola" (Russia).

As shown our investigations the restriction of movement activity on 15 days promote to decreasing of the prostacycline content in vessel's wall, what manifest itself in increasing ADP-induced platelets' aggregation on 19,6% comparatively with control. The injections of flunarizine in dose 1 mg per kg intraperitoneal during 7 days promote to decreasing of the platelets' aggregation on 31,2% comparatively with the same period of hypokinesia. Cinnarizine have been using in dose 10 mg per kg in the same condition hasn't visible anti aggregating action. Increasing of the platelets' aggregation in hypokinesia condition can promote to various disturbances of the blood circulation. The using of the flunarizine in this condition promotes to decreasing of the platelets' hyper aggregation and playing important role in the its mechanism of the antiiscemic action.

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THE EFFECT OF KJOTORFIN ON HUMORAL IMMUNE RESPONSE IN RAT

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In this study we investigated the immunomodulatory effects of enkefalin"relesing"dipeptid-kjotorfin."Plaque forming cell assay"(PFC)response served as an immunological model.For this purpose,different groups of Wistar rats were centrelly(intracerebroventricularly,i.c.v.)treated with two doses of this dipeptid.Centrally injected kjotorfin(5 and 500 μg/kg b.w.) induced a dese dependent potentiation and suppression of PFC response,respectively.

These results suggest that small dose (5 μg/kg b.w.)produced statistically significant increase of PFC response in rat ($p<0,001$),whereas kjotorfin in targe dose (500 μg/kg b.w.)produced statistically significant decrease of PFC response in rat($p<0,001$).

Generally viewed,this results provide evidence for the involvement of the central opioid system in mechanismus underlying the immune responsiveness.

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THE ROLE OF FAMILY RELATIONSHIPS IN PERSONS WITH SEVERE MENTAL ILLNESS

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The authors sought to determine how substance abuse affects family relationships of persons with severe mental illness. Patient reports of family relationships were compared between 80 psychiatric inpatients with a concurrent substance use disorder and 56 subjects with severe mental illness only.

Patients with comorbid substance abuse reported significantly lower family satisfaction and a greater desire for family treatment. Objective indicators of frequency of family contact did not differ.

CONCLUSIONS: Substance abuse is associated with low levels of satisfaction with family relationships among persons with severe mental illness. Family interventions would meet the stated needs of persons with mental illness and a comorbid substance use disorder andmighthelp to engage them in treatment.

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MEDIASTINOSCOPY AND EPICARDIAL BIOPSY: A GERMAN SHEPHERD DOG EXPERIMENTAL MODEL

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Although endoscopic methods are very well established in many fields of medicine, their application in cardiology is still limited due to the poor intravascular visualisation and therefore low diagnostic yield. However, a new increasingly developing field is application of endoscopy in pts with pericardial effusion of unknown origin in order to obtain an eye controlled biopsy. To provide a training before the introduction of this method in our clinical practice we have performed an experimental mediastinoscopy and epicardial biopsy in German shepherd dog and the entire procedure is presented on this video.

The dog was in general endotracheal anaesthesia and a central vein line and EKG monitoring were set. Before the puncture of the mediastinal cavity, one of the precordial EKG leads was attached to the proximal part of the Tuohy needle (Angiomed, Germany). Small longitudinal incision was made in fourth left intercostal space on the mammary line and the Touhy needle with the convex end upwards was slowly introduced into the pleural cavity of the animal. EKG was monitored and the needle introduction was stopped when EKG changes were observed (short VT run). EKG lead was returned to its standard precordial position and a J wire was introduced over the needle. Puncture channel was progressively dilated with 8F, 12F, 14F and 16F vascular dilators. Finally over the 16F dilator, 16.5 F Schneider hemostatic sheath was introduced as a guide for distal part of the endoscope (Olympus HYF 1T flexible endoscope). Very good visualisation was obtained and entire procedure was recorded with the Olympus OTV-A video system. Four epicardial biopsy samples were taken with FB-41ST forceps with good sampling efficiency. Only minor superficial bleeding was observed with no rhythm disorders and no other complications.

In conclusion, this experimental setting can be successfully used to provide a training in thoracic endoscopy. Furthermore this experiment confirmed diagnostic value and safety, and encouraged further investigation of this new technique in cardiology.

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THE PRIMARY AND SECONDARY PREVENTION OF CERVIX CANCER.RECENT PRINCIPALS AND STRATEGIES. EXAMPLE OF THE SCREENING PROGRAMME IN BAS-RHIN BY THE EVE ASSOCIATION IN FRANCE.

C. Panayotidis - ULP strasbourg FRANCE.

The opportunities for prevention of gynecologic cancer are unique. The cervix cancer (c.c) behaves like a sexually transmitted disease. Little is known about the potential relationships of risk factors (HPV, tobacco, Vit.C, contraception). Abstinence and delaying first intercourse should decrease the risk of c.c. Strategies ranging from personal behaviors to choice a contraception, can lower the risk. We must inform women. No method of screening can avoid the cancer. An efficient screening programme must be c aracterized by the mortality of the best rapport efficiency/cost and not the mortality of efficiency in whatever price. The screening test starting from the age of 25 (with a repetition of the test PAP every 3 years) to 65 years old has the best results.

The EVE considered the particular problemes (frequency, cost, starting age) and has organized a very sophisticate and efficient programme, with an autoevaluation and exaustive data, that will be national model of screening programme in France.

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RESISTANCE TO ANTIBIOTICS OF PATHOGENIC MICROBES ISOLATED IN BLOOD CULTURES OF PATIENTS OF AN INTERNAL MEDICINE CLINIC

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It is known that bacteraemias belong to the most frequent nosocomial infections. Purpose of this study was to present results of the control of resistance developed towards antibiotics from microbes isolated in blood cultures during a six months span.
Material of our study was consisted from 114 microbes strains isolated in the blood cultures sended. The most frequently isolated microbes were: Staphylococcus Co (-) in a percentage of 21.6%, E. Coli (17.8%), Streptococcus (12.6%), S. aureus (9.5%), Pseudomonas aeruginosa (9.3%), Enterococcus (8.4%), Klebsiella (8.4%), Enterobacter (5.2%) whereas 2% were the correspondent percentages for Acinetobacter and Proteus mirabilis. Blood cultures were performed according to laboratory specifications and sensitivity control to antibiotics was performed according to the Kirby-Bauer method. As far as microbe resistance is concerned, Enterobacter had a high level of resistance to all antibiotics greater than 50% with only exception to Imipenem, Aztreonam, Netilmycine. Klebsiellae presented high resistance greater than 50% with exception to the most recent kinolones. Resistance of Pseudomonas aeruginosa for ceftazidime was 66.6% whereas for ceftriaxone was 83.3%. E. coli presented resistance 50% to amoxycylline-clavulanic acid, 69% to Cefalothine and 31,2% to cefuroxime. Staphylococcus Co (-) presented high resistance to P, OX, E, FA, GM, TE, SXT, whereas S. aureus presented 75% resistance to penicillin G. As far as Enterococcus is concerned, percentage of resistance to antibiotics has reached even 100% in certain cases, with exception to Vancomycine where resistance was minimal. In conclusion, high percentage of resistance of the microbes studied, towards various antibiotics, requires rigorous medical surveillance, close cooperation with the laboratory and also reasonable use of wide spectrum antibiotics to the patients treated.

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ETIOLOGY OF THROMBOCYTOSIS IN PATIENTS OF AN INTERNAL MEDICINE CLINIC OF A LARGE GENERAL HOSPITAL

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Purpose of this study was the investigation of etiology of thrombocytosis in patients treated in the 2nd Internal Medicine Clinic of Athens University Medical School. There were studied 186 adult patients suffering from thrombocytosis (106 men and 80 women) of an average age of 68 years.
Methods: As screening test was used the number of platelets $\geq 500 \times 10^9$/L, for normal platelet values 150-400 $\times 10^9$/L, for the analyser, whereas simultaneously was also performed microscopic examination of blood smears in the laboratory.
Results: 76 patients (a percentage of 40.9%) presented infection, 42 patients (22.6%) suffered from haemorrage of the gastrointestinal tract, 4 patients (2.15%) suffered from autoimmune diseases whereas 5 suffered from renal disturbances (2.7%). In these cases the number of platelets fluctuated from 500.000/μL to 800.000/μL. On the other hand, there were also other cases such as 39 patients with neoplasms (21%), 4 patients with thrombocytosis after splenectomy (2.15%), 8 patients with bone marrow hyperplastic diseases (4.30%), of which their number of platelets fluctuated from 600.000/μL to 1.300.000/μL. Patients with bone marrow hyperplastic disease had correrspondently a) 4: chronic myeloid leukaemia, b) 2: idiopathic erythraemia, and c) 2: bone marrow sclerosis. It's also mentioned that in 8 patients hasn't been proved a clear cause of thrombocytosis.
Conclusions: In any thrombocytosis, in which the number of platelets reaches or even exceeds 1.000.000/μL and since no other pathological situation is present, there must be an investigation for neoplastic disease or for the presence of bone marrow hyperplastic syndrome.

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CONSIDERATIONS UPON NORMAL AND PATHOLOGICAL ADNEXA IN CHILDREN

Authors: P. Malindretos, T. Chatziadamidou, S. Sabetay (Students, VIth year, Faculty of Medicine, Craiova, Romania)
Supervisor: Dr C. Sabetay, (Chief of Paediatric Surgery Clinic, Universitary Hospital No1 Craiova ROMANIA)

20 cases of adnexial pathology in girs were registered and operated upon in the Paediatric Surgery Craiova between 1980-1995.
There are presented cases having chronical evolution, but also cases showing as an acute abdomen (torsion of the adnexa).
We met in our study benign tumours (cysts) and also malignant tumours, malformation (imperforate himen with Hematocolpos).
The therapeutical methods are described in detail for each of the cases

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THE NEW MEDICINE CENTENARY
Radiology - W.C. Röntgen, 1895.
Nuclear Medicine - A.-H. Becquerel, 1896.
Electron Medicine - J.J. Thomsone, 1897.

J.B. Vuković and M. Letić
Institute of Biophysics, Faculty of Medicine,Belgrade

The presentation is devoted to unique celebration of the 100 years of discoveries of X-rays, Radioactivity and Electrons bringing all together to enormous advecement of modern medicine.
Now, it is interesting to outlined most intesive source of X-rays called Synchrotron Radiation (SR) which is soft X-rays and vacuum ultraviolet light. SR are generated by modern big accelerators (Synchrotrons) for electrons, protons and heavy ions. The brightness of SR source is the million time higher than vacuum tube for X-rays. The papers, nowadays speaks about application of monochromatic SR visualization transmural arteries with size less than 500 μm (animal). DSA is DESA - dual energy subtraction. CT of human with resolution 1 μm and X-ray microscopy are reality, SR therapy, too. Nuclear medicine involves to use radioactive materials, primarily in diagnostic. Many cancers can be treated successful by X-rays, gamma rays and electrons. But, the treating tumors by particles, ranging from protons to light or heavy ions have many advantages. We will speak about TESLA ACCELERATION INSTALATION (Synchronous cyclotron) for proton and deuteron (60 MeV) therapy and as PET Center. We are ineresting for production of polymer nuclear pore filteres as possible the nerve cell membrane. TAI will start soon in Belgrade.
Electron and electronic medicine are aspects of application of free and confined electrons. The first one is direct interaction of energetic electrons with tissue in therapy (Linac). Scattering of electrons is method for visualization o ultrastructure (TEM, SEM). The second aspect is electronics: we again point out visualization - Video and Laser scaninng confocal microscopy.

ABSTRACTS

OF

ROUND TABLE DISCUSSIONS

LECTURES

STATES-OF-THE-ART

TUTORIALS

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ACTIVITIES AND DEVELOPMENT OF THE PUBLIC HEALTH POLICY IN THE EUROPEAN UNION.

W. Baer, European Comission, Public Health and Safety at work - Directorate, V/F/1, Luxembourg.

In 1991 the European Council agreed to expand and define more precisely the Community´s competence in public health. This resulted in the inclusion into the Treaty of the European Union of article 129 on public health which gives the Community a competence in health for the first time.
Essentially, this specifies a Community role in the coordination of national health policies limited to topics of general interest: prevention of diseases (including drug dependence), health information and education.
Importantly, Article 129 acknowledges that "Health protection shall form a constituent part of the Community´s other policies".
In November 1993 the European Commission published its response to the new health provisions in the Treaty of Maastricht. Its "Communication on the framework for action in the field of public health" identifies the following areas for future Community action:
- Health promotion, education and training
- Health data and indicators, and monitoring and surveillance of diseases
- Cancer
- Drugs
- AIDS and other communicable diseases
- Intentional and unintentional accidents and injuries
- Pollution -related diseases
- Rare diseases

Proposals for four of the eight priority areas listed above have already been put forward by the European Commission and all are scheduled to come into effect in 1995-96. Those already published are as follows:
Drugs
Drug abuse is the only major health scourge to be specifically mentioned in article 129 of the Maastricht Treaty. The Action Plan to Combat Drugs was presented by the Comission in June 1994. It consists of measures to reduce demand and prevent consumption.
Cancer
The third cancer programme was adopted by the Commission in March 1994 and builds on the work undertaken in the first two programmes (1987-1990 and 1990-1994). It contains action in all areas of cancer prevention, information and education.
Health promotion, education and training
In June 1994, the Comission put forward its proposal for a Community programme to promote health through health promotion, information, education and training. This will focus, in particular, on the areas of nutrition, consumption of alcohol, tobacco and drugs, physical and mental health, medicines and medication. The programme would be for five years from 1995 to 1999.
AIDS and other communicable diseases
This programme was adopted by the Commission in October 1994 and comprises information, education and prevention action on AIDS, related communicable diseases such as sexually transmitted diseases, and other major communicable diseases.
At present, the European Commission is working to propose the other four areas mentioned before.
It is nevertheless clear that the Community is only at the first stage of developing a public health strategy. In some ways, Community action on public health is only now reaching the stage that environmental policy had reached twenty years ago. The Member States are faced with a range of common issues, but of course they must resolve them according to their own preferences and circumstances. The Community can help them to gather information, exchange, experience coordinate their responses and spread the best practices where possible. The European Commission wishes to encourage and is willing to encourage and is willing to facilitate such Community-level activity.

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EMERGENCY IN MEDICINE

Neroli V, Galanopoulos E, Stamatakis C, Prantsidis A, Douvali H, Gyftopoulos A,Giala M (Moderator)

Modern ways of life have almost completely changed the classic medical services. Emergencies in Medicine have emerged as one of the most important medical issues due to their consequences at the every day life.

Physical catastrophes, traffic and work accidents, fires, and terroristic activities created the nessecity of expanding our knowledge on:

- Prehospital management at the place of the accident
- Cardiopulmonary Resuscitation
- Head and Spinal Cord Injuries
- Poisoning from chemical substances
- Management of burning smoke inhalation
- Legal, ethical and social problems which arise from the new conditions.

This knowledge, fascinating for its multidisciplinary concept must be incorporated to the old well documented one, if we wish to accomplish our duties to ourselves as well as to the people whose lifes have been entrusted to us.

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CONTEMPORARY TREATMENT OF GASTRIC CANCER

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Surgery still represents the therapy of choice for gastric adenocarcinoma (GC) with the aim of a curative R0-resection. This can be achieved by total or subtotal distal gastrectomy and systematic lymphadenectomy of the compartment I/II (D2-operation). Lymph node dissection has diagnostic (i.e. staging) and therapeutic (stage II/III A) implications. Despite improved diagnostic tools more than 50% of GC were operated in advanced tumor stages and the value of surgery alone remains limited. Adjuvant chemotherapy (CTx) could show only marginal advantage in the meantime, therefore preoperative CTx and surgery might be an encouraging alternative strategy according to phase II-studies. Excellent remision rates in locally advanced tumor stages could be obtained, followed by R0-resection. Nowadays randomised trials with different preoperative CTx protocols have to be investigated after exact preoperative staging methods (endosonography, laparoscopy) to exclude distant metastases. Furthermore, immunological and genetic engineering may be of therapeutic impact in the years.

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SUDDEN DEATH - INAPPROPRIATE ACTIVATION OF VAGAL MOTONEURONES: A ROLE FOR CENTRAL 5-HT RECEPTORS. Andrew G. Ramage, Department of Pharmacology, Royal Free Hospital School of Medicine, Rowland Hill Street, Hampstead, London NW3 2PF, U.K.

Inappropriate activation of vagal motoneurones can cause cardiac slowing/arrest and bronchospasm. Using anaesthetized animal models, my laboratory has been investigating the neuropharmacology of these neurones in relation to central 5-hydroxytryptamine (5-HT) receptors and pathways (see Bootle et al., 1996).

To gain an insight into the role of 5-HT in the control of these neurones the following methods have been used: i) histological tracing, ii) application of drugs by microinjection and ionophoresis to these neurone and iii) studying the effect of 5-HT receptor agonists and antagonists on the reflex activation of these neurones by stimulation of cardiopulmonary and upper-airway receptors.

In the cat and rat 5-HT terminals have been shown to synapse with cardiac (CVMs) and other vagal motoneurones. Microinjection of 5-HT and 5-HT_{1A} receptor agonists onto vagal motoneurones causes a bradycardia and similarly, application of these drugs by ionophoresis excites vagal motoneurones. Reflex activation of CVMs by stimulation of cardiopulmonary afferents and upper-airway receptors (the "diving response") is blocked by the central application of 5-HT_{1A} and 5-HT_3 receptor antagonists, while 5-HT_{1A} agonists will potentate the bradycardia in the case of the "diving response". 5-HT_{1D} receptors have been shown, again for the "diving response", to have the opposite role. Blockade of these receptors potentiates the vagal bradycardia evoked by the "diving response". Reflex activation of pulmonary vagal motoneurones (PVMs) has revealed a similar role for 5-HT_{1A} and 5-HT_{1D} receptors. Further, central application of the 5-HT uptake inhibitor, fluoxetine, potentiates the reflex activation of PVMs.

These data suggest that treatment with 5-HT_{1A} receptor antagonists may prevent inappropriate activation of CVMs & PVMs.

Bootle, Adcock & Ramage, (1996) Br. J. Pharmacol.117, 724-728.

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Management of Thyroid and Endocrine Tumours

Thyroid and neuro-endocrine cancers are rare but often present to the clinican with unusual clinical syndromes which present many challenging problems. Differentiated thyroid cancer is principally managed by surgery but there remains much discussion about whether lobectomy or thyroidectomy is the preferred surgical procedure and I shall dicuss the pros and cons of each approach. there is also a controversy about the requirement for adjuvant post operative radio iodine therapy and a literature review will be presented regarding the pros and cons of radio iodine ablation. The use of thyroglobulin as a tumour marker has changed the follow up management making routine use of whole body iodine scanning redundant. The indications for external beam radiotherapy are limited but a discussion will be presented regarding the indications for such therapy. The introduction of prognostic scoring systems has also led to a more rationalised treatment approach to the management of thyroid cancer and I shall illustrate the talk with examples.

Medullary thyroid cancer is a much rarer tumour associated with ectopic hormone production. Newer investigational radionuclides have recently become widely available and have altered the whole diagnostic and therapeutic approach to the treatment of neuro-endocrine tumours. A protocol for the investigation and treatment of neuro-endocrine tumours will be presented together with data on the clinical syndromes and current treatment approaches to these rare tumours.

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NEW PHARMACOLOGICAL APPROACHES IN THE TREATMENT OF CANCER

P. Antonitsis, M. Kourti, A. Kourtis, K. Makedou, N. Simeonidis and V. Mirtsou-Fidani

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Cancer remains one of the major causes for human mortality. During the last three decades there has been considerable improvement in several aspects related to cancer, such as the histopathological classification of the disease, the health and dietary measures for cancer prevention, the use of biological markers for the early diagnosis of the disease and the multi-disciplinary methods for cancer treatment. The latter include surgery, radiation therapy, chemotherapy, hormone therapy and immunotherapy, each of which offers specific advantages and suffers certain limitations in the treatment of cancer. The progress made in all of the above described areas has prolonged significantly the survival time and improved substantially the quality of life in cancer patients. However, the complete treatment of the disease is the minor exception to the rule and consequently cancer remains one of the dominant socio-economic health burdens for humanity.

During the last 15 years, the burst of knowledge offered by molecular biology and the pathophysiology of cancer cells has initiated new research approaches for the treatment of cancer. These novel approaches include the search for: antiangiogenic agents, inhibitors of type IV collagenase and of other metalloproteinases involved in metastasis, agents which will block the anchoring of metastasizing cancer cells in specific receptors in the lumen of the vessels, agents which will induce differentiation of de-differentiated tumor cells and agents which will suppress the expression of oncogenes or initiate the expression of antioncogenes.

In this presentation we will discuss the concept and the expectations of some of the above mentioned novel approaches for cancer treatment.

—7—

THE CONSULTATION STATION OF THE COMMUNITY MENTAL HEALTH CENTER OF THE 2nd PSYCHIATRIC UNIVERSITY DEPARTMENT. TEN YEARS OF EXPERIENCE.

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Community Mental Health Center of the 2nd Psychiatric Univ. Dept. (CMHC)

The Consultation Station(CS) of the CMHC of the 2nd Psychiatric University Department established in 1985 at the 2nd Student Dorms and has continued providing its services until today in the Univ. Health Service. Its main target has been to meet the needs of timely diagnosis and urgent therapeutic management of the psychological problems of the University students, which were already known to the CMHC. At the same time it has elaborated at a consultational and an educational level among the students, for their information on psychological subjects and for the destigmatization of the psychiatric illness. During these years it has provided therapeutic service to 256 students in a time span of 1376 hours.The presenting disorders concerned: 23,82% mood disorders, 22,65% anxiety disorders, 14,06% psychotic disorders, 7,05% somatoform disorders, 6,25% psychosexual disorders, 4,29% adjustment and 6,25% personality disorders. The rest concerned other diagnoses and for 3,14% there was no psychiatric disorder according to DSM-IV. The 12% of the total number has had thoughts about death, suicide thoughts, or committed suicide.The data of the function of CS are discussed, in order to differentiate the function of the CS, giving emphasis not only on the secondary, but also on the primary prevention.

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VIRAL HEPATITIS IN SOUTHERN EUROPE

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Six viruses are responsible for over 90% of cases of viral hepatitis in Southern Europe. They are the hepatitis A, B, C, D, E and G Viruses (from HAV to HGV).

HAV and HEV are transmitted by the oro-fecal route, do not persist and cause only acute hepatitis. The other four viruses cause acute but also chronic infections; the latter may sustain chronic hepatitis and progress to cirrhosis and hepatocellular carcinoma.

Hepatitis A has much declined in recent years thanks to the improvement in sociohygienic conditions. With the diminished circulation of HAV, however, adults and aged people, previously immune by natural infection contracted in childhood are becoming susceptible to the infection. As the severity of hepatitis A increases with age, cases are now seen throughout Southern Europe of severe and occasionally fulminant hepatitis A. A safe and effective vaccine is at hand; it is recommended to travellers to the developing world where HAV is endemic.

Hepatitis E is not endemic in the Mediterranean Basin. It is observred only in travellers returning from North Africa, Mexico and India.

Hepatitis B has much declined in the last decade due to national vaccination programs and to the impact of sanitarian measures to control AIDS (a defective agent requiring HBV for in vivo infection) is remains nevertheless a major cause of cirrhosis and hepatocellular carcinoma in Southern Europe.

Hepatitis C accounts for the large majority of medical liver disease worldwide. With the current efficacious control of transfusion-transmitted infection, the majority of cases has no overt risk factor. (Community acquired hepatitis C). Upon explosure to HCV chronicity ensues causes in over 80% of

—8β—

cases. The clinical spectrum of HCV infection emcompasses liver and non liver disorders, such as cryoglobulinemia, thyroiditis, glomerulonephritis, arthritis.

Progression of chronic hepatitis to cirrhosis is symptomless and occurs on average in 15 to 20 years; it is accelerated by alcohol or iron overload. The liver disease responds in part to therapy with interferon. No vaccine is available.

The newly discovered HGV is a flavi-like virus transmitted by blood derivates. It is present in about 1.5% of blood donors. However the majority (80%) of HGV cases do not have liver disease, about 15% have concomitant HCV disease and only 5% have an autonomous hepatitis (hepatitis G).

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Non Surgical Management of Gynaecological Cancer

This review will principally concentrate on the management of the ovary, cervix, uteri and corpus uteri. Brief mention will be made of the lesser cancers. Ovarian cancer is predominantly a disease managed by surgery in the first instance. In the early stages this is usually curative but in those instances where there is spread beyond the ovary chemotherapy is required. Prognosis is significantly related to the degree of surgery, the bulk of residual disease, the grade of the tumour and the age of the patient. Platinum containing regimes further increase the likelihood of response and cure. Data will be presented to support the optimum degree of surgery and the optimal chemotherapy regimes.

Carcinoma of the cervix is rapidly diminishing in incidence in the western world due to the improved screening programmes but those patients currently managed present a greater challenge as they are often older and less fit. Surgery remains the mainstay of treatment of the younger woman with small volume disease but radiotherapy is the standard treatment for patients with bulkier disease. The role of chemotherapy as a neo adjuvant prior to radiation will be discussed. The management of the patient with positive nodes following surgery will be discussed as will the management of relapsed disease with chemotherapy where several promising new agents are becoming available.

Carcinoma of the endometrium is cured in most instances with surgery. However a small subgroup of patients form into a higher risk group and require adjuvant post operative radiotherapy. The risk factors for relapse will be presented with discussion on the role of radiotherapy. Chemotherapy has a relatively small role to play but the indications for chemotherapy will be reviewed.

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PREVENTION OF AGING: CONCEPT, EXPERIENCE

Marijonas Krikštopaitis, President of
Lithuanian Academy of Active Longevity

Aim of this lecture is to review that global problem according to newest knowledge, the world practice, own experience and to suggest real principles of prevention. Methods and material: Prospective clinical observations with analysis of main risk factors, including lifestyle evaluation and estimation of the electronegativity index of buccal epithelium nuclei by electrophoresis /estimation of biological age/. Results: The electronegativity index /ENI/ correlates with human biological age and with pathological condition. Biological age may be much lower than chronological age. The aging rate depends not only on genetics, but more on accumulative, ecologic, and ontogenetic mechanisms, which may be managed in reasonable persons. Atherogenesis, aging and growing fat may be reversible processes or slowed. This is the general regularity in biology, and is the most complex problem of primary health care. This problem may be very simple in practice, because a healthy lifestyle is an adequate nutrition, optimal psychical and physical activity, and hardening, without main risk factors for all organ systems, taking into account also functional, psychological and social peculiarities of the people lifestyle. Conclusions: The aging is a reversible process. There is founded the Lithuanian Academy of Active Longevity, an original, volunteer, social-practical institution, desiring to study the risk and antirisk factors for longevity, the dynamics of biological age, leaning on the experience and all the controversies.

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ABSTRACT

WHAT WENT WRONG WITH CANCER RESEARCH ?

Despite the enormous effforts invested since 1960 in cancer research the number of new cancer cases and of cancer deaths markedly increased in the industrialized countries and cancer will soon become or already is (Japan) the major cause of death.

CLINICAL ASPECTS

In 1995 the European Community and the USA will have about 2.5 million new cancer cases (skin cancers not included) and about 1.3 millions cancer deaths. The increase in cancer cases is to some extent related to the overall increase in population, the relative increase in older people, improved methods of diagnosis and also to self-inflicted causes; thus tobacco smoking is thought to cause more than 80% of all lung cancers and to be responsible for about 30% of all cancer deaths and, worldwide, for about 1 million cancer deaths per year. The direct and indirect costs of cancer in the USA alone was estimated for 1990 to US$ 108 billion per year. The 5-year survival rate which to some extent reflects the efficiency of cancer therapy corresponded in 1940, 1960 and 1995 to about 25%, 30% and 40%, respectively. A marked progress in therapy was obtained in acute leukemias in children and Hodgkin's disease where 80% of cases can be cured and in 90% of testicular cancers. These cancers, account, however, for less than 2% of all new cancer cases.

ONSET OF MOLECULAR AND GENETIC STUDIES ON CANCER STARTED IN 1960 when Dulbecco reported "in vitro malignant transformation" of rodent tissue cultures by infection with polyomavirus. In December 1971 president Nixon signed the **Cancer Act:** the war on cancer should have eradicated the disease within 10 years.

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After more than 25 years of experimental activity in the field of oncogenic DNA viruses (polyomavirus, SV40 and papillomaviruses) I was led to the conclusion that neither the natural history of cancer (i.e. the development) nor the fundamental nature of the cancer cell (i.e. invasivity and ability to form metastases) can be explained by the genetic models (oncogenes; tumor suppressor genes) presently available. As an alternative I was led TO A WORKING HYPOTHESIS WHICH CONSIDERS THE NATURAL HISTORY OF CARCINOMAS FROM THE POINT OF VIEW OF DEVELOPMENTAL BIOLOGY. This hypothesis has now opened novel clinical (e.g. in cancer prevention) and experimental approaches in cancer research.

AN OVERVIEW OF THE ALTERNATIVE HYPOTHESIS

CARCINOMAS account in adults for 85-90% of all solid cancers. This is surprising since their tissues of origin, ephithelia and glands, account only for a small fraction of all tissues. The clinical diagnosis of cancer in adults is generally preceded over years or decades by a continuum of histological abnormalities referred to as "dysplasias of increasing severity" **(precancerous lesions). The latter, including cancer in situ,** may stop further progression or even disappear, or may progress, however, to invasive and metastasizing cancer.

STEM CELLS play in adults a pivotal role in normal histogenesis: **in epithelia and glands** they maintain a homeostatic (dynamic) equilibrium of the tissues; they are undifferentiated but already determined and may differentiate into tissue-specifc cells; they exhibit a remarkable capacity to undergo self-renewal, i.e. continuous replication without differentiation. However, they also may undergo **asymmetric cell division:** one daughter cell remains a cycling stem cell whereas the other differentiates into a mature cell which,

—11γ—

apparently as a consequence, loses the ability to undergo further mitosis. In epithelia stem cells tend to be confined to the lowest cell layer whereas in the colon crypts, considered to be glands, they are present in a specific area deep within the crypts. Under physiological conditions replication of stem cells, differentiation and final shedding of the aged cells are in a finely tuned homeostatic equilibrium.

ERRORS IN STEM CELL DIFFERENTIATION LEAD TO ABNORMAL HISTOGENESIS.

The very early events during the natural history of all carcinomas examined are, surprisingly, **largely independent of the carcinogenic etiology;** they are primarily linked to aberrant and/or incomplete differentiation of stem cells which, apparently as a consequence, **continue to divide.**This leads to **ectopic stem cell proliferation** and to increasing disturbances in histogenesis, generally paralleled or followed by the **disruption of genomic stability,** aneuploidization and progressive loss of differentiation markers. The mechanisms underlaying disturbed differentiation of stem cells seem to involve **genetic and epigenetic factors.**

THE LONG PATH TO CARCINOMAS

I shall present in my seminar, as an overview, only the development of **adenocarcinomas in the colon glands (crypts) and of carcinomas developing in the cervix epithelium.** It is of interest that the natural history of all other types of carcinomas studied (e.g. in the bronchial epithelium of heavy smokers etc) shows an analogous "tumor progression" during years or decades.
In conclusion, the appearance of cancer cells is a late and apparently rare event and neither the complexity of the natural history of carcinomas nor the fundamental nature of the cancer cell can be explained by the genetic models available.

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I personally consider the fundamental nature of the cancer cell as one of the major biological enigmas of our time. It appears likely, however, that the combination of novel molecular techniques together with advanced histopathology, will provide information on differential gene expression during the progression of advanced precancerous lesions (cancer in situ) to invasive cancer.

BENIGN TUMORS AND PSORIASIS

The observations available from these diseases clearly indicate that **"loss of control of cell proliferation"** is not synonymous with the conversion of normal into cancer cells.

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Thessaloniki, May 3-5 1996
Prof. Roger Weil
Geneva, March 7, 1996

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SURGICAL COMPLICATIONS OF LIVER TRANSPLANTATION

by A.A. Antoniades

Orthotopic Liver Transplantation (OLTx) is an extensive surgical procedure with a narrow margin of safety, and a single error at any stage of the operation can cause the demise of the patient.

Although refinements in the surgical and anaesthetic techniques of liver transplantation have helped to improve results, surgical complications remain common. In recent reports, the surgical complication rate after liver transplantation ranged from 14% to 55%.

In addition, the development of new surgical techniques, including reduced-size, split, and living related liver transplant has changed the spectrum of surgical complications reported after liver transplantation.

The surgical complications in liver transplantation can be categorized as hemorrhagic, vascular, biliary, intestinal and wound related.

Hemorrhagic complication. This complication should be prevented than treated.. Massive intraoperative hemorrhage is associated with a higher postoperative complication rate.

Aggressive intraoperative repletion of coagulation factors by the anesthesiologist can help to decrease intraoperative blood loss.

Vascular complications. Comlications involving the hepatic artery in liver transplantation are the highest of vascular comlications (2%-11,7%) and are associated with considerable morbidity and high mortality. In pediatric liver transplantation, the incidence of hepatic artery complication has been reported to be as high as 26%.

Thrombosis of PV is less common occuring in 1% to 8,3% in reported series.

Hepatic Veins thrombosis, even rare, results in severe allograft dysfunction with massive ascites. Technical factors

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of reccurance of Budd-Chiari syndrome are the major causes.

Biliary tract complications. Until recently problems related to biliary drainage have been considered the "Achilles heel" of liver transplantation.

Failure of the biliary tract reconstruction mainly expressed as leakage and obstruction, is the most frequent complication of OLT and has been reported to be as high as 29%. The genesis of biliary tract complications is multifactorial but most often related to vascular, technical, or immunological factors.

Gastrointestinal complications. Gastrointestinal complications after liver transplantation can be classified into three groups: Obstruction, perforation and bleeding.

Intestinal obstruction is somewhat rare and may occur at any time following the transplant.

Intestinal perforation can occur either early or late. Early perforation are usually anastomotic leaks (jejunostomy) or perforation of areas denuded of serosa or those injured by electrocautery.

Gastrointestinal bleeding may be from esophageal varices, gastritis and peptic ulcer disease, the jejunal anastomosis, infectious enteritis (CMV), or hemobilia associated with liver biopsy.

Wound complications. Wound hematomas and infectious are the most frequent problems, occuring in 18%.

Presentation of wound infections in immuno-suppressed patients can be very mild. It is prudent to open any suspicious wound and let it heal by secondary intention rather than allow a wound abscess to continue untreated.

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SCREENING FOR CANCER WITH PARTICULAR REFERENCE TO BREAST CANCER

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Cancer is common; it affects 1 in 4 people and 1 in 5 will die of it. Strategies must be formed to improve health. Prevention programmes can be difficult to carry out because the aetiology of a cancer is not always known and is often multifactorial. The influence of the factor may have been years previously extending back to childhood and/or adolescence. It is also difficult changing social habits, such as encouraging people to stop smoking.

An alternative approach is to detect a cancer when it is small and asymptomatic. The tumour is less likely to have metastasised and the prognosis is better. Therefore many programmes have been set up to screen for cancer, with emphasis particularly on cervix, breast, colorectal, gastric, oesophagus, lung and prostate. The screening of some tumour sites , (such as lung cancer), has allowed earlier detection but without the improvement in cure rates. Other tumours show great geographical variation so that screening is only feasible in some countries.

There are many questions to be answered. Is screening appropriate? Is the incidence of disease sufficiently high to justify the expense and effort? What are the risks and benefits? Which populations are at risk? What is the best screening test to use and when should it be repeated? Will the patient comply? Is it cost effect? These questions will be covered in my presentation.

I will cover the above cancers and then concentrate on the common cancers breast, colorectal and prostate and particularly compare the different approaches. I will present results of breast screening by mammography and briefly discuss the value and indications for MRI.

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IMPACT OF THE HUMAN GENOME PROJECT ON THE PREVENTION OF GENETIC DISEASES

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The world-wide project aimed at studying the human genome brings a continuos flow of new information which is of great impact on most fields of the contemporary medicine. However, the area of its most direct practical application is the DNA-based diagnosis of genetic diseases and their screening.

In this lecture, the main achievements of the Genome Project will be briefly summarised, and the methods of diagnosis of genetic diseases, based on the DNA analysis will be presented. The indirect and direct diagnostic approaches will be described, and practical examples of the DNA-based diagnosis of several frequent single gene disorders (cystic fibrosis, phenylketonuria, haemophilia and others) will be presented. At the same time, diagnostic use of the DNA polymorphisms (RFLP, VNTR, STR etc.) will be explored.

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