# FIRST INTERNATIONAL MEDICAL CONFERENCE

# THE ROAD TO MEDICINE

16- 18 June 2016 Thessaloniki, Hellas



Sofia, Bulgaria 2019



### SOUTHEAST EUROPEAN MEDICAL FORUM

(SEEMF)

# FIRST INTERNATIONAL MEDICAL CONFERENCE

### THE ROAD TO MEDICINE

16- 18 June 2016 Thessaloniki, Hellas

> Sofia, Bulgaria 2019

SOUTHEAST EUROPEAN MEDICAL FORUM

e-mail: <u>seemf.congress@gmail.com</u> Website: <u>www.seemfcongress.com</u> Tel./fax.: +359 2 854 87 82

© Издателство: Сдружение "Югоизточно-европейски медицински форум", 2019г.

© Publisher: Southeast European Medical Forum, 2019

ISBN 978-619-7544-19-0



EACCME European Accreditation Council for Continuing Medical Education

# Certificate

First International Medical Conference of the Southeast European Medical Forum Thessaloniki, Greece (18.–17.06.2016)

has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide the following CME activity for medical specialists.

First International Medical Conference of the Southeast European Medical Forum is designated for a maximum of, or up to 12 European CME credits (ECMEC).

Dr.....

(country)

Each medical specialist should claim only those credits that he/she actually spent in the educational activity.

The EACCME is an institution of the European Union of Medical Specialists (UEMS), www.uems.net.

Through an agreement between the European Union of Medical Specialists and the American Medical Association, physicians may convert EACCME credits to an equivalent number of AMA PRA Category 1 Credits<sup>11</sup>. Information on the process to convert EACCME credit to AMA credit can be found at www.ama-assn.org/goin/internationalcme.

Live educational activities, occurring outside of Canada, recognized by the UEMS-EACCME for ECINEC credits are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of The Royal College of Physicians and Surgeons of Canada.



Dear colleagues,

It is my pleasure to welcome you to the First International Medical Conference, organized by the Southeast European Medical Forum, 16-18 June 2016 in Thessaloniki.

The mission of SEEMF is to promote the knowledge and the science in different fields of medicine, to unify the standards of medical care systems. That is why your presence at the Conference brings satisfaction and stimulates us continue sharing our knowledge and experiences in the field of medicine.

We hope that the congresses of SEEMF we are holding each year and now this conference will contribute to the development of medicine in the countries of Southwest Europe, to the exchange of ideas about the medical practice and science in our region as well as public health.

The SEEMF Board is making as always all efforts in a spirit of peace, friendship and collaboration continuously to strengthen our organization and maintain it as reputable partner to other European and international associations.

Welcome to the First International Medical Conference of SEEMF!

Dr. Andrey Kehayov, MD, PhD SEEMF President

### FIRST INTERNATIONAL MEDICAL CONFERENCE organized by SOUTHEAST EUROPEAN MEDICAL FORUM (SEEMF) Dates: 16 – 18 June 2016 Venue: Thessaloniki, Greece

### **ORGANIZING COMMITTEE**

### **Co-Chairs:**

Dr. Andrey Kehayov, Chairperson of the Bulgarian Physician Association, President of SEEMF

Dr. Stylianos Antypas, SEEMF Secretary General

### Members:

1. Acad.Prof. Vladimir Ovcharov – Medical University of Sofia

2. MD, PhD Pavel Poredos - Department of Vascular Disease, University

Medical Centre Ljubljana, SEEMF Vice President

3. Dr. Aizhan Sadykova – National Medical Association Almati

4. Professor Gia Lobzhanidze – Georgian Medical Association Tbilisi

5. Prof. Dr. Sini ša Miljković – Association of Medical Doctors of Republic of Srpska

6. Prof. Dusko Vasic, urologist, President of the Medical Association of Republic of Srpska, Bosnia and Herzegovina

7. Valiantsina Hancharova – International Academy of Informational Technologies Minsk

8. Prof. Dr. Jaroslav Blahos – Czech Medical Association, Prague

9. Prof. Goce Spasovski – University Clinic of Nephrology, University "Ss Cyril and Methodius" Skopje

10. Asst Prof Goran Dimitrov – University Clinic of Ob/Gyn, Skopje

11. Gligor Tofoski – Macedonian Medical Association Skopje

### **SCIENTIFIC COMMITTEE**

### Chair:

Prof. Wladimir Ovtscharoff, President of the Bulgarian National Medical Academy, anatomy, histology, cytology and embryology, Bulgaria

### Members:

1. Prof. Goce Spasovski – University Clinic of Nephrology, University " Ss Cyril and Methodius" Skopje

2. MD, PhD Pavel Poredos – Department of Vascular Disease, University Medical Centre Ljubljana

3. Dr. Stylianos Antypas - Municipality of Mellisia Athens

4. Professor Gia Lobzhanidze – Georgian Medical Association Tbilisi

5. Jelka Masin- Spasovska – University Clinic of Nephrology, University "Ss Cyril and Methodius" Skopje

6. Prof. Olivera Stojceva – Taneva – University Clinic of Nephrology, University "Ss Cyril and Methodius" Skopje

7. Prof. Dimitri Kordzaia – Alexandre Institute of Morphology at Ivane Javakhishvili Tbilisi State University Tbilisi

8. Prof. Nenad Joksimovic – University Clinic of Gastroenterology, University " Ss Cyril and Methodius" Skopje

9. Assoc. Prof. Sotir Stavridis – University Clinic of Urology, University "Ss Cyril and Methodius" Skopje

10. Angelko Gjorcev – Clinic for Pneumology and Allergology in Skopje

11. MD. PhD Saso Dohcev University Clinic of Urolog, University "Ss Cyril and Methodius" Skopje

12. Nikola Jankulovski – University Clinic of Abdominal Surgery, University "Ss Cyril and Methodius" Skopje

13. Oliver Karanfilski – University Clinic of Hematology, University "Ss Cyril and Methodius" Skopje

14. Snezana Markovic – University Clinic of Endocrinology, University "Ss Cyril and Methodius" Skopje

15. Daniela Miladinova – Institute of Nuclear Medicine, University "Ss Cyril and Methodius" Skopje

16. Igor Kaftandziev – Un.Clinic of Traumatic surgery, University "Ss Cyril and Methodius" Skopje

17. Zlatica Petrova – Medical Audit Executive Agency Sofia

18. Danail Petrov - Thorasic Surgery Clinic, Medical University Sofia

19. Assoc. Ihar Labunets – Belarusian State Medical University, Department of Oncology Minsk

20. Valiantsina Hancharova – International Academy of Informational Technologies Minsk

21. Vasiliy Smychek – National Science and Practice Center of Medical Assessment and Rehabilitation Minsk

22. Larisa Navumenka – N.N Alexandrov National Cancer Centre of Belarus Town of Lesnoy

23. Lidia Sagalchik – Urology Center of the outpatient clinic N06 of Minsk

24. Asst Prof Goran Dimitrov – University Clinic of Ob/Gyn, Skopje

25. Gligor Tofoski - Macedonian Medical Association Skopje

26. Prof. Sonja Stavrikj – University hematology Clinic, Medical faculty Skopje

27. Prof. Dr. Jaroslav Blahos - Czech Medical Association, Prague

28. Dr. PhD Evangelia Dounousi – University of Ioannina, School of health Sciences, Department of Internal Medicine, Division of Nephrology Ioannina

29. MD PhD Ioannis Boletis – Nephrology Department and Renal Transplant Unit, Laiko General Hospital Athens

# **ABSTRACTS**

### METROPLASTY AND INFERTILITY OUTCOME Gligor Tofoski MD. PhD University Clinic of Obstetrics and Gynecology- Skopje, Macedonia

Congenital uterine anomalies (CUA) of the female reproductive tract (Mullerian anomalies) are heterogenous group of malformations, involving the uterus, cervix, Fallopian tubes and vagina. They represent the biggest part of the anomalies of the reproductive tract, and depending on the specificity of the defect, can seriously influence the reproductive and obstetrical health of the women.

Uterine malformations (UM) represent the highest proportion af anomalies of reproductive tract, and are the most significant beacause have the highest impact on pregnancy. According to the available published data , the prevalence of the uterine malformations is around 5% in women with normal reproductive history, 3-5% in infertile women, 5-10% in women with previous reccurent abortions, and more than 25% in women with reccurent fetal loss- abortion in late first semester, second trimester or preterm delivery. Uterine septum is the most frequent congenital anomaly of the reproductive tract, accounting for 3-4% in the general population.

Presence of uterine malformations can influence the reproductive outcome by increasing the rate of abortions, preterm deliveries, and obstetric complications. Patients with uterine malformations have decreased reproductive potential and unfavorable reproductive outcome, starting even from the first pregnancy. Overall term pregnancy rate in patients with untreated uterine malformations is around 50%. Patients with uterus didelphus and unicornuate uterus have term delivery rate of ~45%, and pregnancies with untreated septate and bicornuate uterus of ~40%. In patients with arcuate uterus reproductive outcome is slightly better, with term delivery rate of ~65%.

The prevalence of congenital uterine anomalies in a subgroup of infertile patients at our department, showed result which are higher (39, 5%) than those published in the literature. Probably that is due to the preselection of the patients, who have been already going through the process of infertility investigation with the primary gynecologist, having done ultrasound evaluation of the uterus or hysterosalpingography.

Uterine malformations are associated with abnormal uterine cavity, which is considered to be one of the reasons influencing on the reproductive outcome of these patients. Obtaining normal uterine cavity is the basis of the treatment. A good surgical correction of the uterine cavity does not mean/result in a certain/favorable reproductive outcome since uterine vascularization is probably involved in the uterine function. The theory which is nowadays widely accepted, states that septum is consisted of fibroelastic tissue with inadequate vascularization and changed ratio between blood vessels of the endometrium and myometrium, presenting negative effects on decidualisation and placentation .

Hysteroscopic metroplasty obtains normal uterine cavity, but also resolves normal uterine function, by providing normal reproductive outcome in these patients.

Most of the research findings have revealed that majority of uterine malformations found (>55%) are presented with septate and arcuate uterus (type 5 and 6 according to AFS classification), which can be effectively treated by means of operative hysteroscopy. Many of the published studies analyzing the influence of

congenital uterine anomalies in infertility patients, found significant improvement of the reproductive outcome after metroplasty, with results showing sharp decrease in the number of abortions present in this group, and significant decrease in the number of preterm deliveries

The prevalence of congenital uterine anomalies is high in the infertility group of patients and thoroughful investigation should be made for their detection and treatment with hysteroscopic metroplasty, which significantly improves their reproductive outcome.

## CLINICAL AND HISTOPATHOLOGICAL ANALYSIS OF ENDOMETRIAL CARCINOMA

Drage Dabeski, University Clinic of Gynecology and Obstetrics, Skopje, Republic of Macedonia

**Background:** Endometrial cancer is the most common gynecological malignancy. The study is performed in order to investigate the correlation between histological grading of endometrial cancer and histopatholgical results.

**Methods**: Retrospective study, conducted in the period from January 2015 to April 2016 of 56 women, age groups of 35 to 65 years, operated because of endometrial carcinoma at the University Clinic of Gynecology and Obstetrics in Skopje. We was investigated a possible correlation between histological grading, clinical staging, myometrial infiltration, parametrial invasion and lymph nodal metastasis.

**Results:** Among poorly differentiated carcinomas G3, myometrial infiltration above half of its thickness was observed in 71.2% of the cases, whereas in the G2 and G1 groups it was in 64.4% and 36.3% of the affected individuals. Parametrial invasion was found in 21.3% of G3 cases, more than in G2 (6.5%) and more than in G1 (3.1%). Lymph nodal metastasis were present in 24.6%.

**Conclusions:** Histological grading for endometrial carcinoma at the time of diagnosis is significantly related to clinical staging. Risk of lymph nodal invasion is similar to the risk for moderately differentiated carcinomas.

### EXPRESSION OF VIRAL ONCOPROTEINS E6 AND E7 IN WOMEN WITH SQUAMOUS CELL ABNORMALITIES OF THE UTERINE CERVIX

Drage Dabeski, University Clinic of Gynecology and Obstetrics, Skopje, Republic of Macedonia

**Background:** Overexpression and deregulation of E6 and E7 viral oncoproteins is an essential factor for malignant transformation of infected cells following HPV integration in the host genome. The study is performed in order to investigate the positivity of HPV DNA and HPV E6/E7 mRNA expression in women with squamous cell abnormalities of the uterine cervix.

Methods: Cross-sectional study, conducted in the period from January 2015 to December 2015 of 164 sexually active women, age groups of 20 to 50 years with

squamous cell abnormalities on the cervical cytology, who came to their annual gynecological exam at University Clinic of Gynecology and Obstetrics in Skopje. In all patients was done: HPV DNA testing, HPV E6/E7 mRNA testing and colposcopic cervical biopsy with endocervical curettage for histopathological analysis.

**Results:** Results were compared with concurrent histopathological data. Highrisk HPV were found in 62.2% (102/164) of patients. The most common genotype was HPV-16 (44.6%), followed by HPV-31, HPV-18, HPV-33 and HPV-45. HPV DNA was detected in 80.5% (132/164) of the examinated women. HPV E6/E7 mRNA was detected in 40.2% (66/164) of the examinated women. According to grade of squamous cell abnormalities, HPV DNA was detected in 62.5% (18/24) of LGSIL, in 76.2% (32/42) of HGSIL and in 90.0% (9/10) of invasive squamous cell carcinoma, HPV E6/E7 mRNA was detected in 37.5% (9/24) of LGSIL, in 92.9% (39/42) of HGSIL and in 100% (10/10) of invasive squamous cell carcinoma.

**Conclusions:** Our results suggests that HPV E6/E7 mRNA testing may be a more specific diagnostic tool and a better predictor of disease progression than HPV DNA testing

### THE ROLE OF HPV TESTING AND HPV TYPING IN CERVICAL CANCER PREVENTION AND DETECTION

Goran Dimitrov MD PhD Asst. Prof.

### President of the Macedonian Medical Association, University Clinic of Gynecology and Obstetrics, Skopje, Macedonia

Cervical cancer is a leading cause of mortality and morbidity among women worldwide, especially in undeveloped countries. Every year, in the world 529,828 women are diagnosed with cervical cancer and 275,128 die from the disease. Although its peak is at ages 60–69, the incidence increases after 30 years of age. It is well recognized that persistent infection of the uterine cervix with high-risk types of human papillomavirus (hrHPV) is required for the development of invasive cervical cancer. While infection with hrHPV is common, especially in sexually active young women, most infections are transient and spontaneously clear without clinical consequences. However, some women develop persistent hrHPV infections and are at risk for cervical cancer and its precursors. The virus is transmitted to the cervix and vaginal tissues primarily by sexual intercourse.

The expression of two oncogenes E6 and E7 is partly related to the carcinogenicity of different HPV types. 12 HPV types have been classified as high risk: type 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59. HPV-16 and 18 contribute to over 70% of all cervical cancer cases, between 41%-67% of high-grade cervical lesions and 16-32% of low-grade cervical lesions worldwide.

Organized screening programs for cervical cancer in many countries had led to a substantial fall in the incidence and mortality rates attributed to cervical cancer. Primary cervical cancer screening by cytological examination of cervical cells with a Pap test is considered the most successful cancer screening programme to date, but because of the low sensitivity and a substantial number of missed invasive cases has made several renowned cytologists to name it as a test of "triumph and tragedy". The interest for developing new tests with adequate sensitivity and specificity for detecting clinically significant cervical cancer precursors, has increased in recent decades. One such method is Human Papillomavirus Testing via viral DNA detection which is based on the knowledge that infection with HPV is at high risk for development of cervical cancer.

Detection of high risk HPV DNA is considered to be potentially useful in three clinical applications: triage of borderline abnormalities, primary screening in selected age groups, and follow-up of treatment for precancerous or neoplastic lesions.

Several large studies have shown the advantages of HPV DNA testing as primary screening, after the conclusion of Leyden et al, 2005 and Andrae et al, 2008 that nearly one fourth or even one third of invasive cancer cases are missed by the conventional cytology screening. The study of nearly 1 million screened women in Kaiser Permanente in Northern California showed that the 3-year risk following an hrHPV-negative result was lower than the 5-year risks following a cytology-negative/ hrHPV-negative cotest, and that the most of the reassurance of safety provided by a cotest is derived from the HPV test component.

Ronco et al (2014) analyzed follow-up data from 4 published randomized controlled screening trials of HPV-based screening in Europe (NTCC – Italy, ARTISTIC – United Kingdom, Swedescreen – Sweden and POBASCAM – Netherlands). The comparison between liquid based and conventional PAP and PCR assay or HC-2 (hybrid capture), after 2 and a half years of follow-up showed increase of incidence of invasive cervical cancer in women initially screened with cytology compared with those screened using hrHPV testing. There was also a better overall detection of adenocarcinoma using hrHPV testing which is a known problem for cytology-based screening strategies.

The ATHENA study (a US based randomized controlled trial) showed significantly and substantially higher 3-year cumulative incidence rate (CIR) of CIN3 and cancer (CIN3+) in women  $\geq$ 25 years who are cytology negative at enrollment compared to women who were hrHPV negative (Wright TC Jr et al, 2011).

Infact, studies from the beginning of the nineties of the last century have shown that women older than 30 with normal cytology eho are positive for hrHPV have a 116-fold greater risk of developing high-grade lesions compared with similar women who are HPV negative (Melkert et al, 1993).

Women with persistent HPV infection are 300 times more likely to develop HSIL (High grade squamous intraepithelial lesion) than those without or a negative HPV test and a normal PAP result provide confidence that a woman does not have, and is not likely to develop, high-grade cervical disease or cancer within next 3 years (Clavel et al, 2001; Saslow et al, 2002).

In April 2014, US Food and Drug Administration (FDA) approved the COBAS test (Roche diagnostics), for first-line primary screening. The FDA's decision to approve the use of this test was based on results from the ATENA trial which enrolled more than 7000 women and this study clearly demonstrated than 1 in 4 women that are HPV 16 positive will have cervical disease in 3 years and that nearly 1 in 7 women with normal PAP cytology who were HPV 16 positive actually had high-grade cervical disease that was missed by cytology.

Primary hrHPV screening is an important scientific and clinical advance in cervical cancer screening since it offers better reassurance of low cancer risk compared to cytology-only screening conducted at the same interval. However, to achieve the maximum benefit of screening, we need to continue to identify women who are either unscreened or under-screened.

## THE IMPACT OF HIGH RISK HPV TYPES ON COLPOSCOPY AND HYSTOPATHOLOGY, IN PATIENTS WITH GENITAL DYSPLASIA

Elena Dzikova, Goran Dimitrov, Maja Avramovska University Clinic for Gynecology and Obstetrics, Skopje, R. Macedonia 1. Elena Dzikova

2. GoranDimitrov

3. Maja Avramovska

**Objectives:** Cervical cancer is the first cancer that is known to be virally induced by the Human papilloma virus (HPV). Today, the diagnosis and management of cervical carcinoma is challenged by the new HPV DNA testing methods bringing more opportunities for predicting and curing the disease.

Our study was designed to evaluate this model of diagnostic procedures for identifing genital dysplasia in the earliest stage.

Methods: From 50 female patients that underwent HPV DNA typing, 71,1% had abnormal colposcopic findings and underwent hystopathologic diagnostic procedures.

**Results:** High risk HPV (HR) DNA was identified in 14% of the patients. were 29,9% had normal colposcopic findings. Grade II changes were found in 29% of the HR HPV positive patients, whereas, grade III in 75%. 100% had findings suggestive of malignancy. The impact of HR HPV positive types on the histopathologic findings (colposcopic directed biopsy) and was as following: Chronic cervicitis 53,8% with 5,2% HR HPV positive cases; condyloma 4,4% with 29% HR HPV; CIN1 28,4 with HR HPV 17,3%; CIN2 4,7% with 36,8% HR HPV; CIN3 6,4% with 77% HR HPV; Carcinoma in situ 2,3% with 100% HR HPV positive cases.

**Conclusions:** Our study showed that HR HPV types have a great impact on colposcopy and hystopathology findings consequently increasing the grades of colposcopic class and histopathologic findings, thus suggesting that there is a strong association of HR HPV positivity with higher grades of histopathologic findings.

### TREATMENT RESULTS AND PROGNOSTIC FACTORS BY GASTROESOPHAGEAL CANCER.

Labunec I.<sup>1</sup>, Prochorov A.<sup>1</sup>, Shepetjko M.<sup>1</sup> and Bozhok P.<sup>2</sup> 1. Department of Oncology, Belarusian State Medical University, Minsk, Belarus 2. Department of Oncosurgery №4, Minsk City Clinical Oncological Hospital, Minsk, Belarus

The study presents remote results of surgical treatment of 329 patients with cancer of gastroesophageal localization. All patients are hospitalized by the Public Health Institution "Minsk City Clinical Oncologic Dispensary" in the period from 2002 to 2015. This group was consisted of patients with tumors, which anatomical epicenters were located in the lower thoracic esophagus or GEJ or within the proximal 5 cm of stomach (i.e., cardia) with the tumor mass extending into GEJ or distal esophagus. All patients underwent the transpleural gastric and esophagus resection by combined thoracolaparotomy access, as follows: 155 cases underwent gastrectomy with resection of the lower third of the esophagus by Garlock-Osawa; 96 cases underwent proximal gastrectomy with subtotal resection of the esophagus by Lewis. D2 dissection with excision of a minimum of 16 lymph nodes was performed in all cases.

Postoperative mortality in groups of operated patients amounted to 5.2% (17 out of 329 cases): after gastrectomy with resection of the lower third of the esophagus by Garlock - 3.9% (6 lethal cases out of 155); after proximal gastrectomy with the lower third of the esophagus by Garlock - 5.2% (5 lethal cases out of 96); after proximal gastrectomy with subtotal resection of the esophagus by Lewis - 7.7% (6 lethal cases out of 78).

Survival of gastroesophageal cancer patients, who undergone curable surgical treatment is low: the combined three and five-year survival rates were 37.1% and 26.2% respectively.

The most important predictor is a factor of lymph node involvement. So, 3 and 5-year period of observation experienced respectively 59.2% and 43.6% of patients without metastatic lymph nodes and 26.2% and 18.4% - with nodal metastases. Long-term survival does not depend on the number of affected lymph nodes.

Out of 298 cases of gastric and esophageal resection classified as radical (R0), 3-and 5- year observation period survived was 39.3% and 29.1% patients, respectively. Out of all cases qualified as palliative surgery, 3-and 5-year survival rate was 9.4%. When combined operations with resection of adjacent organs, compared with those after conventional surgery 3-year survival rate was respectively 21.1% and 43.7%, 5-year-old - 15.2% and 31.3%.

### TREATMENT RESULTS BY GASTRIC CANCER IN PATIENTS UNDER THE AGE OF 30 YEARS

Labunec I<sup>1</sup>, Prochorov A<sup>1</sup>, Shepetjko M<sup>1</sup> and Bozhok P<sup>2</sup>

1. Department of Oncology, Belarusian State Medical University, Minsk,

Belarus

2. Department of Oncosurgery №4, Minsk City Clinical Oncological

Hospital, Minsk, Belarus

2.

A retrospective analysis was conducted on 8466 gastric cancer patients from different age groups treated in Minsk City Clinical Oncological Hospital from 1998 to 2013. Out of that sample, 77 (0.9%) patients were under the age of 30. Gastric cancer was diagnosed in 72 cases (0.85%) that accounted for 93.5% of total amount of malignant incidents; carcinoid was diagnosed in 3 cases (3.9%) and gastrointestinal stromal tumor was confirmed in 2 cases (2.6%). Among the cases of stomach cancer was dominated by females (43 - 59.7%); male to female ratio was 1: 1.5.

In overwhelming majority (72.2%) cases of gastric cancer in young patients were diagnosed with an advance stage (IV). Total or sub-total stomach lesion was confirmed in 59.7% cases, distal part of the stomach was affected in 17 cases (23.6%), proximal part - in 12 (16.6%), and spreading of the tumor to the esophagus was confirmed in 7 cases (9.7%). Adjacent organs were affected in 76.4% of cases; lymphatic and hematogenous metastases were confirmed in 72.2% and 69.4% cases. Peritoneal carcinomatosis with malignant ascites condition was reported in 41.7% cases.

Analysis of the morphological tests results indicates that gastric cancer in young patients is characterized by the development of mostly aggressive low differentiated forms of the disease (84.7%) and, consequently, exhibits more aggressive biological behavior with the locoregional cancer progression and distant metastasis (in 72.2% cases), which reduces the possibility of radical curative surgery and leads to worse prognosis results.

Out of 72 cases only in 28 (38.9%) curative extirpation or resection of the stomach was possible to perform. Only 17 (60.7%) of this 28 patients were treated with radical (R0) partial or total gastrectomy with the standard D2 lymphadenectomy. 11 patients in clinical stage IV with local carcinomatosis and clinical complications (perforation, bleeding, tumor stenosis), underwent palliative subtotal resection or gastrectomy. In 22 patients the operation was limited to a exploratory laparotomy or symptomatic operation. 27 patients were treated with postoperative adjuvant chemotherapy.

After radical surgery 3-year gastric cancer survival rate in young patients is 74.5%, 5-year - 62.5%. Regardless of the adjuvant chemotherapy overall survival rate after palliative surgery does not exceed 2 years. In the group of patients with advanced forms and receiving chemotherapy, one-year mortality was 75.0%. Patients who did not undergo chemotherapy died within one year after being diagnosed. Adjuvant chemotherapy increased the life span by not more than a year.

### ROLE OF NUCLEAR MEDICINE IMAGING IN OSTEOSARCOMA Miladinova Daniela, MD PhD

Institute of Pathophysiology and Nuclear Medicine Faculty of medicine, University SsCyril and Methodius, Skopje R.Macedonia

It is widely accepted that any lesion suspective of a bone tumor (including osteosarcoma) should undergo bone scintigraphy. There are many radiopharmaceuticals that have been used to image bone and bone malignancy (99mTc labelled phosphate complexes, 67Ga citrate, 201Tl Chloride, 99mTc-MIBI 99mTc-tetrophosmin). The most commonly used bone seeking radiopharmaceutical is 99mTc labelled methylene diphosphonate.

Three phase 99mTc MDP bone scan could be helpful in diagnosis of undetermined cases and as a basic scan before the initiation of different treatment modalities. One of the first steps in the interpretation of the bone scan is the assessment of vascularity in the lesion region. Increased vascularity and high blood pool activity could be in indicative of a malignancy. On delayed images, the main purpose is to determine if there is solitary or multiple bone lesions. In the case of proven osteosarcoma it is also very important to detect skip lesions and other skeletal foci of tumor (multicentric osteosarcoma or primary lesion with multiple metastases). Apart from it, bone scan is extremely useful in detection of soft tissue extension through hematogenous (lung metastases) or lymhogenous dissemination (lymph node metastases). In the presence of tumor prosthesis, bone scan could be helpful in demonstrating complications as loosening, infection or bone and soft tissue recurrence.

Typical appearance of osteosarcoma with tumorotropic radiopharmaceuticals(201Tl and 99mTc-MIBI) demonstrated increased uptake in primary tumors and metastatic deposits, but is also important in the assessment of posttherapeutic tumor response on chemo or radiotherapy.

Sometimes, single photon emission computed tomography (SPECT alone or in combination with CT as SPECT/CT), may also be carried out on delayed images to obtain better spatial information, more precise anatomic localization and to improve the sensitivity of the bone scan. This may be extremely helpful where there is a significant overlap of different skeletal structures (skull, pelvis, and spine) and soft tissue involvement.

FDG/PET has advantage for detecting osseous and soft-tissue recurrence compared with whole body MRI and bone scan, especially in the assessment of bone marrow involvement. PET and PET/CT with the introduction of cell specific radiopharmaceuticals will be more widely used in bone malignancies. Osteosarcoma should be one of the commonest indications, particularly in assessment of the response to therapy, prognostic indicator in the management and prediction of the survival rate.

### COMBINED TREATMENT OF PATHIENTS WITH CHOROID MELANOMA USING PHOTODYNAMIC AND TRANSPUPILLARY THERMOTHERAPY WITH BRACHYTHERAPY USING ISOTOP 106 RU

L. Navumenka, K. Zhilyaeva, A. Karman, D. Tserkovsky N.N. Alexandrov National Cancer Centre, Belarus

**Relevance:** The treatment of patients with large size choroid melanoma is difficult: the volume of the tumor mass, distinct level of blood flow in the tumor, the localization of the tumor process. Develop a method of a conserving treatment combining transpupillary y thermo- and photodynamic therapy with intravenous injection of Photolon, and  $\beta$ -radioactive Plagues and Isotopes 106Ru+106Rh

**Methods:** A group of patients (n=60) with choroidal melanoma T2-3N0M0. A diode laser, a laser installation to conduct photodynamic therapy, a Belarusian drug «Photolon» and 106Ru+106Rh  $\beta$ -radioactive plagues.

**Results:**By combining the methods of treatment for a period of 3 years, the patients had an immediate positive outcome. We noted a reduction of blood flow, a decreased diameter of the largest vessel of the tumor tissue, a reduction of the size and volume of the tumor; a reduction of the linear blood flow rate, peripheral resistance index and the pulsatility index values of vessels within the tumor. The third clinical group included 18 (30, 0%) patients, from which 11 - showed complete tumor resorption. In 14 patients (23.3%) a stabilization of the tumor process is registered and 21 (35%) of the treated patients are on a dynamic monitoring according to the protocol.

**Conclusions:** A method of a conserving treatment combining transpupillary thermos- and photodynamic therapy and  $\beta$ -radioactive Plagues and Isotopes 106Ru+106Rh allows us to destroy the tumor cells, block the tumor vasculature, create a chorioretinal atrophy around the tumor and keep the patient residual visual function of the eye or the eyeball as a bioprosthesis.

### CLINICAL CAUSE CASE OF KAPOSI'S SARCOMA MIT AFFECTED OF EYE MUCOSA MEMBRANE

L. Navumenka, K. Zhilyaeva, A. Karman, D. Tserkovsky N.N. Alexandrov National Cancer Centre, Belarus

**Topical questions:**Kaposi's sarcoma (KS) is a cancer that develops from the cells that line lymph or blade veccels. It usual appears as tumors on the skin or mucosal surfaces such as inside the mouth, but tumors can also develop in other parts of the body, such as the lymph nodes or digestive tract.In the past 5 years, a big progress was made in the comprehension of the nature of KS.The condition is caused by a virus known to us as the HHV-8 also called the KS-associated herpes virus (KSHV).In the presented case below, we are going to examine the classic sporadic KS in tumor stage.

**Case study:** Patient T. Born in 1927. He consulted the clinic on November 2012 with the diagnoses: Kaposi's sarcoma affected: 1. the skin of both legs after the surgery on 05.2009. Relapse. 2. KS of the mucosa of the lower lip and the skin at the top of the foot after the surgery on 01.2011. Relapse. 3. KS of the soft tissues of the left

ear and the skin of the scrotum after the Remote radiotherapy on 02.2011 (total dose=24 Grey). Relapse? This is an interesting case, because of its atypical localization. KS is localized on the conjunctival arch.

**Clinical picture:** In the middle of the right conjunctival arch, we noted an elastic red colored tumor with a nodule type of growth and damaged layer. On the lateral side of the left conjunctival arch, we noted an elastic red-grey colored tumor with a nodule type of growth and damaged layer. On the localization of the tumor the eyelid is blue colored, edematous and increased in volume. A biopsy was taken (Histology corresponds to Kaposi's sarcoma)We also noted a single red colored tumor with growth of nodules on the mucosa of the hard palate. We can also find punctuate hemorrhagic rash.

Based on the histological studies, medical clinical picture and the history of the patient, he was diagnosed with KS of the mucosa of the hard palate and the conjunctival arches of both eyelids.

Additional studies:

- A positive results (the presence of antibodies to herpes types 8)
- Negative results (Anti-HCV ELISA test)

The patient was treated with an interstitial radiotherapy (total dose =41.6 Grey). What concerned KS of the mucosa of the hard palate was surgically treated.

After the conducted treatment the patient is under constant control with an interval of 3 month: The visual function is unchanged, the conjunctival arches are clean, pale pink colored, and no discharge were marked. During the observation period no new lesion of KS were revealed. Additional tests for infectious diseases that might have influenced of the development KS. The results were negative. The treatment of patient T. is performed by a radical program.

**Conclusion:**For the diagnostic of this particular disease a biopsy is required. We should not forget about the peculiarities of the elderly as well as taking a details medical history. This case leads to the conclusion that the development of KS doesn't necessarily need the presence of Human immunodeficiency virus (HIV).The disease may be due to the age peculiarities in the immune system.

### SURGERY FOR PULMONARY NEUROENDOCRINE TUMORS

Petrov DB,

Thoracic Surgery Department, Saint Sophia University Hospital for Pulmonary Diseases, Medical University, Sofia, Bulgaria

The aim of the study is to evaluate the role of surgery in the multimodality management of pulmonary neuroendocrine tumors (PNET), to present up to date surgical procedures, the long term results and the prognostic factors.

In 2016 WHO Classification of lung tumors PNET were classified into one group with two subgroups: (1) Well differentiated PNET: typical carcinoid and atypical carcinoid and (2) Poorly differentiated PNET: large cell neuroendocrine carcinoma andsmall cell carcinoma. The main morphological criteria for differential diagnosis of these tumors are their mitotic activity and presence or absence of necrosis. PNET tumors staging is according to the 7threvision of TNM Classification of malignant tumors (UICC, 2009). Surgery includes different pulmonary resections, bronchoplastic or extended procedures, which are performed based of the tumor morphology and stage by open thoracotomy or VATS. Systematic mediastinal lymph nodes dissection is carried out in all patients.

Pulmonary carcinoids include low- and intermediate-grade malignant tumors i.e. typical (TC) and atypical carcinoid (AC). TC arewith mitotic count < 2/10HPF (G1) and AC are with mitotic count 2-10/10HPG, scarce necrosis, metastases in mediastinal lymph nodes and distant metastases(G2). In central TC thebronchoplastic resections are preferred, if possible. In peripheral TC cases lobectomy is usually performed, but sublobar resections are viable options. The 5- and 10-year postoperative survival is about 85%. Endoscopic resections are indicated in pedunculated endobronchial tumors. More aggressive AC are treated by bigger or extended pulmonary resections, although the aim is to apply more "conservative" resection. The 5-year survival is about 60%.Histology and nodal status are the significant prognostic factors in carcinoid group. Adjuvant chemo-/radiotherapy following radical resection of locoregional disease is not recommended.

Large cell neuroendocrine carcinoma (LCNEC) is with a high mitotic indexwith more than 10 mitoses per 2mm2 (10 HPF) and frequent necrosis(G3). The overall 5-year postoperative survival is about 36%. Although LCNECs are surgically treated as NSCLCs in several surgical series global less satisfactory prognosis of this kind of tumours would suggest that management should not be exactly the same as for NSCLCs and adjuvant treatment should probably be proposed, also in the initial stage of the disease.

Small cell lung carcinoma (SCLC) is the most aggressive tumor, with more than 11 mitosis/10 HPF and large necrosis(G3). Surgery is indicated in patients with stages I-II,following thorough staging with different methods and procedures, optimally includingmediastinoscopy. The radical resections is followed by adjuvant chemotherapy in patients with N0 diseases. In patients with N2 disease a concurrent chemotherapy and mediastinal radiation is administerred. Prophilactic cranial irradiation should be administered following chemotherapy in radically operated patients. Surgery, as a part of a multimodality management, achieves a better prognosis and control of local relapses, with 5year survival of30-52% for stages I-II of the disease. In conclusion, radical pulmonary resections (organ-preserving if possible) are the method of choice in well differentiated PNET. Surgery in poorly differentiated PNET (following precise staging/restaging) is a part of multimodality management. Tumor histology and nodal status are the significant prognostic factors in these patients.

### CURRENT STATE OF REHABILITATION OF ONCOLOGICAL PATIENTS IN THE REPUBLIC OF BELARUS

Vasiliy B. Smychek, MD, Head of State Institution, National Science and Practice Center of Medical Assessment and Rehabilitation

The need of development and expansion of the sphere of rehabilitation for oncology is caused by the existing world tendencies in epidemiology assuming further growth as numbers of the diseased, and actually incidences of malignant neoplasms. In Belarus, primary incidence of malignant neoplasms for the last five years increased from 542.5 per 100 thousand of population to 610.5 per 100 thousand of population. This primary disability due to malignant neoplasms has increased from 14.5 per 10 thousand of population to 16.9 per 10 thousand of population. There is a tendency to increase in disability at children from 1.56 per 10 thousand of population in 2014 to 2.03 per 10 thousand of population in 2015.

Medical rehabilitation of the oncological patient is an integral part of rendering the medico-social help to patients and represents long process which sometimes proceeds all subsequent life.

The role of the doctor-rehabilitator is the identification, assessment and treatment of functional deficits for the purpose of restoration, optimization and maintain the functions and quality of life of the patient. In achievement of the purpose of optimization of function has a close relationship a doctor-rehabilitator with doctor (oncologist), radiation oncologists, surgeons, and other members of medical team for this patient.

In Belarus, there is in practice-stage system to provide rehabilitation assistance, providing consistent assistance in the following stages: therapeutic, early stage of inpatient rehabilitation, outpatient stage, the stage of re-inpatient rehabilitation, home stage.

In process of compensation of functional disorders and the patient's adaptation to the existing defects, the leading role in the rehabilitation process is assigned to social and professional rehabilitation taking into account a labor orientation, a profession and working conditions.

The features of rehabilitation of oncological patients are:

- stage process where at each stage of the treatment, follow-up and patient's life using special methods of rehabilitation, allowing the patient to return to normal life and work, or creating conditions of comfortable existence;

- the earliest possible start of rehabilitation, continuity, continuity and maximum cooperation with a medical stage;

- complexity and identity of approach;

- an active installation of the patient's rehabilitation.

### ALTERED THERAPEUTIC RESPONSE TO INHALED CORTICOSTEROID IN SMOKING PATIENTS WITH MILD ASTHMA

Z. Arsovski, D. Dokic, B. Kaeva, Z. Goseva, S. Pejkovska, E. Janeva, A. Arsovska University Clinic of Pulmonology and Allergy, Skopje; University Clinic Of Neurology, Skopje

In a lot of studies smoking has an implication on the therapy in asthmatic patients. We have analyzed the effect of inhaled fluticasone propionate in corticosteroid naïve adult patients with asthma (smokers and nonsmokers). From 54 patients with asthma: 16 asthmatic patients who were smokers and 22 non smokers asthmatics were randomized in the study.

All of them received daily dose of 500  $\mu$ g of fluticasone propionate during 6 weeks. The effects of the inhaled therapy were determined by pulmonary function tests and asthma control test (ACT) which were performed before and after treatment. SABA was used as a rescue medication during the study. There was no statistical difference between groups concerning the age and FEV1before the beginning of the study. After 6 weeks of treatment with inhaled corticosteroid we have found positive effect on FEV1 (p<0,000001) in the group of non smoking asthmatics compared with smoking asthmatics. Positive effect on ACT (p<0,05) was found in the group of non-smoking asthmatics compared with smokers with asthma.

Although we have a small group of analyzed subjects with asthma our result confirms the finding in the literature that there is an altered therapeutic response to inhaled corticosteroid therapy in smoking asthmatics. Additional therapy should be proposed to this subgroup of patients with asthma.

### ASTHMA AND COPD OVERLAP SYNDROME (ACOS)

PHIU Clinic of Pulmology and allergy-Skopje Skopje, Macedonia Dimitrievska D, Zdraveska M, Todevski D, Janeva E.

Asthma and chronic obstructive pulmonary disease (COPD) have traditionally been viewed as distinct clinical entities. Recently, however, much attention has been focused on patients with overlapping features of both asthma and COPD: those with asthma COPD overlap syndrome (ACOS).

A significant proportion of patients who present with symptoms of a chronic airways disease have features of both asthma and COPD. Several diagnostic terms, most including the word 'overlap', have been applied to such patients, and the topic has been extensively reviewed. However, there is no generally agreed term or defining features for this category of chronic airflow limitation, although a definition based upon consensus has been published for overlap in patients with existing COPD. In spite of these uncertainties, there is broad agreement that patients with features of both asthma and COPD experience frequent exacerbations have poor quality of life, a more rapid decline in lung function and high mortality and consume a disproportionate amount of healthcare resources than asthma or COPD alone.

ACOS accounts for approximately 15–25% of the obstructive airway diseases and patients experience worse outcomes compared with asthma or COPD alone. Patients with ACOS have the combined risk factors of smoking and atopy, are generally younger than patients with COPD and experience acute exacerbations with higher frequency and greater severity than lone COPD. Pharmacotherapeutic considerations require an integrated approach, first to identify the relevant clinical phenotype(s), then to determine the best available therapy. The authors discuss the array of existing and emerging classes of drugs that could benefit those with ACOS and share their therapeutic approach. A consensus international definition of ACOS is needed to design prospective, randomized clinical trials to evaluate specific drug interventions on important outcomes such as lung function, acute exacerbations, quality of life and mortality.

### BODY MASS INDEX – BMI AND FEV1 IN PATIENTS WITH SEVERE ASTHMA

Jovanovska Janeva E<sup>1</sup>, B.Kaeva.<sup>1</sup>, Gjorchev A.<sup>1</sup>, Goseva Z.<sup>1</sup>, Gjorchev A.<sup>1</sup>, Zdraveska M.<sup>1</sup>, Dimitrievska D.<sup>1</sup>Trajkov D.<sup>2</sup> Dimitrova G. Magdalena<sup>3</sup> <sup>1</sup>PHI University Clinic of Pulmonology and allergology, Skopje, Macedonia <sup>2</sup>Institute of Immunobiology and Human Genetics, Skopje, Macedonia <sup>3</sup>PHI University Clinic of Gastroenterohepatology, Skopje, Macedonia

**Introduction:** most studies show that the incidence of asthma and increased Body Mass Index - BMI are frequently related. Obesity can lead to limitations in airflow, with reduction in both Forced expiratory volumen in one second - FEV1 and Forced vital capacity -FVC.

**The aim of this study** was to determine the relationship between Body Mass Index - BMI (an indirect measure of adiposity) and FEV1 in patients with severe asthma.

**Method:** the study included 59 patients with severe asthma. In each of them were measured Body Mass Index – BMI with calculating from the recorded values for height and weight of each patient according to the equation BMI = weight (kg)/height(m). The pulmonary function is measured by basic spirometry parameters, FEV1.

**Results:** the results were statistically elaborated according to the Spearman Rank Order Correlations test with p < 0.05. They shows a non significant negative correlation between BMI and FEV1 (r <0.05, -0.096), it means that patients with higher BMI have lower FEV1 values in obese patients with severe asthma.

**Conclusion:** it is important that weight reduction and physical activity are effective means of reduction the respiratory complications of obesity and produced improvements in the severity of asthma with of increasing lung function, lower symptom scores, and less frequent use of medication, and hospitalization.

Key words: asthma, BMI, FEV1, obesity

# TREATMENT OF SEVERE ASTHMA - ROLE OF INTERVENTIONAL PULMOLOGY

Zdraveska M, Dimitrievska D, Todevski D, Janeva E, Gjorcev A PHIU Clinic of Pulmology and Allergy-Skopje, Skopje, R. of Macedonia

Severe, difficult to treat asthma encompasses only 5-10 % of all asthmatic patients, but its economic burden is significant as well as is its impact on quality of life of the patients and their families. Bronchoscopy and bronchoalveolar lavage have been traditionally involved in the treatment of severe acute exacerbations of asthma providing unplugging of airways blocked with mucus as well as sampling of mucosa for research purposes, in spite of the probability of severe adverse events. In the last decade, interventional pulmology takes an increasing role in the treatment of the most severe cases of asthma by establishing the technology of bronchial thermoplasty, or delivering of heat pulses to the airways aiming to diminish the accumulation of smooth muscle, typical for the process of airways thermoplasty shows increasing positive results on reducing the incidence of exacerbations and maintaining pulmonary function in meticulously selected severe asthmatics, although current guidelines still have irreconcilable views.

### ADOLESCENT'S INTENTION AND SELF-EFFICACY TO FOLLOW PAP TESTING RECOMMENDATIONS AFTER RECEIVING THE HPV VACCINE

D-r. Vaso Korunoski -1; D-r. Pavlina Korunoska

As of December 2014, there were 3 approved vaccines for human papillomavirus (HPV): bivalent Cervarix (GlaxoSmithKline, New York, NY), quadrivalent Gardasil (Merck and Co, Kenilworth, NJ), and 9-valent Gardasil-9 (Merck and Co). The quadrivalent vaccine is the most widely administered worldwide. As with the bivalent and 9-valent vaccines, thevaccine is considered safe, although concerns have been raised. In addition to immunization against the targeted HPV types, there is evidence that there is cross protection against other types of HPV. In our gynecology and obstetrics office "PZU KORUNOSKI-MVR" provided 377 quadrivalent HPV vaccines, with a recommended 3-dose course, and has achieved great success in terms of reinfection with HPV in the period from 2011 to 2015 year. This continuing medical education review evaluates the differences in vaccines that are currently on the market.

From 2008 to 2012, the HPV vaccine was free ,in our country for female persons to 26 years old. In our office – PZU Korunoski-MVR , vaccinated 377 patients, of whom 17 received 1 dose and they are not inserted in the sample. 32 patients( under 16 years old) received 2 doses and they are taken in the analysis. The analysis by the tests were done from 2011 to 12.2015 year.Of those 328 patients (vaccinated with 3 doses) -214 are aged under 16, and the remaining 114 are over 16 years old , 86 had already sex. From 360 vaccinated patients, 296 come for controle PAP test once ore more times after the vaccine.From these controlled with PAP test, a positive HPV or CIN I got in 42 persons, among which made HPV test, while 20 is detected the presence of DNA from HPV (type 32,52,33 and 45 most often) . Remaining 22 patients were

HPV negative . In 20 women with a positive HPV test was made biopsia and ECC(Endocervical curettage), with findings obtained Cervicitis chronica verosimiliter virosa in 12 patients and Dysplasia epithelii cervicis uteri gradus levis (CIN I) at 8 patients. In those patients with Dysplasia epithelii gradus levis was made CO2 laser vaporisation . In all positive PAP tests immunotherapy was given. In any patient there was no progression of the PAP test finding, and in 24 persons controle PAP test was negativity after 6 months. In those patients with a positive HPV test and immunotherapy and laser therapy, after a year in 9 patients HPV test was negativity. In no person has been detected any warts, and the biggest change is mild dysplasia. For any person was not detected HPV type 16,18, 6 and 11.

HPV vaccine (quadrivalent) is excellent protection against cancer of the cervix and the appearance of warts, especially in patients who have previously had no contact with HPV.

# ДИСТАНЦИОННЫЕ ОБРАЗОВАТЕЛЬНЫЕ ТЕХНОЛОГИИ В СИСТЕМЕ ПОВЫШЕНИЯ КВАЛИФИКАЦИИ МЕДИЦИНСКИХ СЕСТЕР БЕЛАРУСИ: НОВОЕ СОДЕРЖАНИЕ Матвейчик Т.В.<sup>1</sup>, Делендик Р.И.<sup>2</sup>, <u>Терехович Т.И<sup>3</sup></u>

<sup>1</sup>Белорусская медицинская академия последипломного образования, Минск, Беларусь,

<sup>2</sup> «Реабилитационный центр Зеленый бор» ГУ «Республиканская больница спелеолечения», г. Солигорск, Беларусь,

<sup>3</sup> Республиканский научно-практический центр медицинских технологий, информатизации, управления и экономики здравоохранения, Минск, Беларусь

Информатизация общества стала основным фактором, определяющим развитие всех форм образования, потребовавшая решить не только задачу обучения информационным технологиям, но и их внедрение в практику. В системе повышения квалификации (ПК) медицинских сестер (МС) необходимо качественную передачу необходимой научной только обеспечить не медицинской информации, но и обучить навыкам постоянной самостоятельной учебы, без дистанционных технологий решать эти задачи сложно, особенно с учетом профилактической направленности развития медицины.

Организация учебного процесса при дистанционном обучении (ДО) происходит согласно принципам:

научности, системности, комплексного подхода c использованием разнообразных форм, средств и методов организации обучения, а также

единством квалификационных требований к должности MC; - дифференцированного подхода к обучению, реализуемого с учетом базовой подготовки и профессиональной необходимости в удобное для медицинских специалистов время;

- единства обучения и самообучения с ориентацией на самостоятельную работу, с различными источниками информации;

- личной заинтересованности МС в ПК, подкрепленной требованиями законодательства Республики Беларусь об обязательном повышении квалификации;

- непрерывности ДО, позволяющего повышать профессиональный уровень без отрыва от работы.

Отличие ДО от традиционного обучения состоит в особенностях методики и технологией организации учебного процесса, повышенных требованиях к интеллектуальному потенциалу обучающимся, их навыкам работы с информацией, изменении функции участников, а также уровня требований к специальной подготовке преподавателей, обеспечивающих самостоятельную работу, поддерживаемую его консультациями.

Имеющие место уязвимые места дистанционного обучения в систему дополнительного образования нуждаются в коррекции, учтенные в новой программе ПК «Основы работы главных (старших) МС санаторно-курортных и оздоровительных организаций»:

- «запаздывание» знаний, обусловленное ростом технологий по выявлению и лечению все новых заболеваний, а также требовательностью населения, имеющего доступ к информации по теме;

- нерациональное использование времени, которое при ДО будет проходить на рабочем месте;

- большая стоимость, которую ДО позволит сократить за счет минимизации расходов по этим статьям.

практическим навыкам, Обучение MC сестринской педагогике, формирование здоровья культуры направленной людей требует на традиционного очного контакта, но вся теоретическая подготовка и упражнения в принятии решений могут проходить в дистанционной форме, для чего переработка учебного плана. Внедрение необходима ДО в систему образования определенные дополнительного выдвигает требования к обучаемому специалисту, и к преподавателю.

Обучающийся должен иметь:

• высшее образование медицинского, технического или педагогического профиля;

• навыки работы с персональным компьютером (PC) на уровне пользователя;

• навыки работы в сети Internet (WWW и электронная почта);

• PC с типичным программным обеспечением (графическая операционная система, интернет-браузер, средство для работы с электронной почтой) и подключением к сети Internet.

В настоящее время остро ощущается дефицит преподавателей, которые могли бы разрабатывать дистанционные курсы для МС и проводить по ним обучение, поскольку для этого нужна специальная подготовка не только по техническим вопросам, но и по методическим. Например, разработчик курса должен правильно определить последовательность и соотношение дистанционной части обучения и традиционной, учитывая огромную специфику и весомые ограничения в обучении медицинским специальностям, с учетом информатизации здравоохранения и новых технологий. Эффективность современных технологий ДО определяется сочетанием нескольких ключевых факторов, позволяющих обучаемым быстро освоить нужные объемы учебной информации, добиться лучших результатов работы. Это интерактивность, улучшенная визуализация, гибкость в использовании, оперативность обновления и контактов, возможность общения с преподавателем и другими обучаемыми, доступность.

Важной частью ДО являются телемедицинские системы, в Республике Беларусь функционируют телемедицинские системы, охватывающие 11 организаций здравоохранения районного, 9 – областного, 10 организаций республиканского уровня, в рамках которых проводятся семинары по хирургии, онкологии, кардиологии, медицинской реабилитации, санаторно-курортному лечению и др. В перспективе технологии ДО в образовательных программах будут развиваться в трех направлениях: в профессиональной переподготовке, в ПК и при сопровождении специальных программ для отдельных категорий специалистов. Оснащение организаций здравоохранения специальным оборудованием станет дальнейшим шагом развития ДО медицинских сестер Беларуси.

# THE IMPORTANCE OF BARIATRIC-METABOLIC SURGERY IN THE TREATMENT OF OBESITY AND METABOLIC SYNDROME

Abbasov P.A., Najafgulieva P.H. II Department of surgical diseases, Azerbaijan Medical University, Baku

Bariatric-metabolic surgery is the only appropriate method of treatment for people suffering by morbid obesity with a body mass index over 35 kg/m2, allowing to achieve significant and at the same time, persistent weight loss.

During 2013-2015 years bariatric surgery was performed in 38 patients. Among patients 4 men, 34 women. The youngest patients age is 23, the oldest is 64. Diabetes Type II diabetes and glucose tolerance violation was found in 17, elevated cholesterol and triglyceride levels at 26, 23 sleepy apnea, hypertension in 20 patients. The lowest BMI 35.3 kg / m2, the highest 65.7 kg / m2. The amount of insulin in the blood of 17 patients was higher than normal. Of the 34 female patients, 28 women were found such symptoms as: violation of genital functions, ovarian dysfunction, menstrual disorders, hormonal imbalances, and in 2 women infertility, which lasted more than a year. The period of postoperative follow-up of 1-20 months. Decreasing unnecessary weight within 6 months was 70-50%; a total weight of 25-48%. Sleepiness apnea was cured in 19 patients. 16 patients in the normal amount of cholesterol in 18 patients and 22 patients triglycerides was normal. The amount of insulin in the blood during the first 2 months in 5 patients, and in the first 6 months was normal in 12 patients. In 21 women has been restored menstrual cycle.

### **ENDOCRINE DISRUPTORS AND HEALTH** Jaroslav Blahoš, Prof. MD, DSc. Czech Medical Association, Czech Republic

Endocrine disruptors are toxic chemicals which resemble to normal human or animal steroid and thyroid hormones and can mimic their function on metabolic and reproductive processes. The outcome of their action may be various pathologic condition. They are produced by industry, transport, and other anthropogenic activities. The first known pollutant was DDT, now e. g. bisphenol A, dioxin, phtalates and others. Climate conditions may enable the spread of these pollutants globally.

### WHAT ENHANCED ELIMINATION TECHNIQUES ARE USEFUL IN CRITICAL TOXICOLOGY PATIENTS

Chaparoska Daniela,

Professor of Internal medicine, Clinical toxicologist University Clinic of Toxicology, Sts Ciryl and Methodius, Skopje, Macedonia

**Objective:** Poisonings account for a significant portion of health related admissions to hospitals across the world. Nephrologists and critical care physicians are involved in the treatment of acute poisonings in various roles either as consultants or treating physicians. Knowledge of toxicological principles is therefore important to ensure that optimal management is offered to poisoned patients.

Methods:Use of elimination enhancement techniques is an integral part of the general management of poisoned patients. Poison specific antidotes can rapidly reverse life-threatening symptoms, but they are only available for a minority of cases. Other treatments may include competitive receptor agonism or antagonism to mitigate the effect of the poison. Poison specific antidotes can rapidly reverse life-threatening symptoms, but they are only available for a minority of cases. Other treatments may include competitive receptor agonism or antagonism to mitigate the effect of the poison. Poison specific antidotes can rapidly reverse life-threatening symptoms, but they are only available for a minority of cases. Other treatments may include competitive receptor agonism or antagonism to mitigate the effect of the poison. When a patient presents early after ingestion or when the poison is still

When a patient presents early after ingestion or when the poison is still expected to be in the gastrointestinal (GI) tract, the potential benefit for GI decontamination with gastric lavage, single-dose activated charcoal, or whole-bowel irrigation must be evaluated. Many patients unfortunately present after the ideal window for GI decontamination, usually accepted to be within 1 hour of ingestion; however, decontamination also can be considered after exposure to xenobiotics that undergo extended-release, delay gastric emptying, or cause bezoar formation, even after the "golden hour." Interventions in which the physician can potentially make a difference in outcome and/or decrease the duration of toxicity are those centered on decreasing the body burden of a given absorbed poison by increasing its elimination.

These measures are usually divided between corporeal and extracorporeal treatments. Corporeal treatments occur inside of the body whereas extracorporeal treatments take place outside of the body, usually via an extracorporeal circuit. Extracorporeal treatments include hemodialysis, hemoperfusion, peritoneal dialysis, continuous renal replacement therapy, exchange transfusion, and plasmapheresis.

**Summary:**Enhanced elimination techniques can effectively decrease the body burden of many toxins, but well-designed studies are currently lacking to quantify their benefits.

### **COMUNAL PREGNANCY - A CASE REPORT**

Jadranka Georgievska, Valentina Tofilovska University Clinic for Gynecology and Obstetrics, Medical faculty Skopje, R Macedonia Corresponding adress: Jadranka Georgievska, ul. Dragoviti No I-B, Skopje,R Macedonia.

An interstitial pregnancy is pregnancy located outside of the uterine cavity in the part of fallopian tube that penetrates the muscular layer of the uterus. Cornual pregnancy is located in the horn of a bicornuate uterus or in the corner where the tube connects. These pregnancies account 2-4% of all tubal pregnancies. Patients with cornual pregnancies have a 7-times higher mortality than those with ectopics in general.

We present a case with cornual pregnancy diagnosed in 35 years old patients that come on our Clinic because of abdominal pain and vaginal bleeding. Serum level of human chorionic gonadotropin was 24195 mIU/ml. Transvaginal ultrasonographic evaluation confirmed pregnancy located in the right corner of uterus. Laparotomy with cornual wedge resection and salpingectomy were done. Histopathological examination confirmed diagnosis of cornual pregnancy.

**Conclusion:** Ultrasonographic evaluation is helpful method for diagnosis of cornual pregnancy. Surgical methods to remove the pregnancy include: cornual incision with removal of the pregnancy (cornuostomy), resection of the cornual area usually combined with salpingectomy and hysterectomy. Surgical interventions depends by the clinical situation and can be done either by laparoscopy or laparotomy.

### INITIAL TREATMENT OF NEWLY DIAGNOSED YOUNG PATIENTS WITH MULTIPLE MYELOMA

Prof dr Sonja Genadieva Stavrikj, University hematology Clinic, Medical faculty, Skopje

In the last decade, survival of patients younger than 50 years with newly diagnosed multiple myeloma has significantly improved, with 10-years survival rate increasing from 24, 5 to 41, 3%. Similar data were reported from a population–based study conducted in Sweden, where median survival more than doubled in the past five decades for patients aged < 65 years from 24.3 months to 56.3 months, but did not significantly changed for patients aged > 65 years. The explanation of these findings is due to the introduction of autologous stem cell transplantation after high-dose chemotherapy which is the gold standard for the treatment of young, fit patients with multiple myeloma. Prior to high-dose melphalan, patients receive induction therapy to reduce the tumor burden. The efficacy of treatment is mainly related to the achievement of a durable response. The goal of induction therapy is to achieve a maximum degree

of tumor reduction before stem cell harvest and transplantation. The achievement of a complete response (CR) is associated with prolongation of progression, free survival and overall survival. There is a several randomized data that enable physicians to choose the best regimen for initial therapy. There is no place for the irreversible myelosupressive agent melphalan, and other alkylating agents, in patients who can potentially benefit from autologous stem cell transplantation, and melphalan should not be used as first-line therapy in those cases. There are at least five active classes of (table...): alkylators, corticosteroids, treatment proteasome inhibitors. immunomodulatory drugs, and antracyclines. All these drugs have significant activity against multiple myeloma when are used alone, but having in mind that they may have complementary mechanism of action, their activity is increased further when they are combined between each-other. So, today we are facing numerous doublet, triplet and quadruplet combinations which have been tested through the use of these drugs.

When autologous stem cell transplantation is a therapeutic option for a newly diagnosed young, fit patient, the patient must be treated with agents that do not compromise hematopoetic stem/progenitor cell collection, so after a few cycles of induction therapy progenitor stem cells should be collected. Nowadays initial treatment options for a young newly diagnosed patient with multiple myeloma should be based by a risk adopted approach conforming to the maxim of optimizing the therapeutic index by balancing efficacy with potential side effect.

If an hematologist would search for cured patients with multiple myeloma, he would stop in the registry of transplanted patients who underwent allogeneic transplantation. Unfortunately there is only a small number of these patients. The main reasons for that are: high transplant related mortality, donor limitations, advanced age. In the field of autologous transplantation there is operationally "cure" for only 3-10% of multiple myeloma patients which will remain in complete remission after high-dose chemotherapy and autologous stem cell transplant. The main advantages of autologous transplantation are: achieving complete remission in 15-30%, the possibility of long treatment-free period with excellent quality of life; prolongation of survival by one year. There is still a role of autologous stem cell transplantation in the era of novel agents. With autologous transplantation after induction therapy there is a possibility for further decrease of the tumor mass. Incorporating the novel agents in the induction protocols improved the complete remission rates and this is the first step towards higher complete remission rate after transplantation. Today, complete remission is considered as "condition sine qua non" for an improved survival. The efficacy of treatment is mainly related to the achievement of a durable response. We already know that mechanism of action of high-dose melphalan and novel agent are different, so they are acting complementary.

### ЗДРАВОСОЗИДАНИЕ, ДОЛГОЛЕТИЕ И ОСМЫСЛЕНИЕ ИХ ДУХОВНЫХ СОСТАВЛЯЮЩИХ

Маньшин Г. Г., Мазаник Л.Ю., Гончарова В.Л.

Научная работа и длительный практический опыт (более 20 лет, в том числе по Государственным научным тематикам и программам) показывают, что

при восстановлении здоровья новыми современными методами и средствами в режиме саморегуляции и усиления обратных связей организма с самим собой основные системы организма запрашивают из окружающей среды ряд параметров, которые практически остаются неизменными в восстановительных процессах внутренней (BHy) среды организма (клеток, интерстициальных пространствах межклеточной среды) психологических состояний. Из этих постоянных параметров выделены десять, которые сформировали так называемую «корзину незаменимых, жизненноважных» и формируют «экоменю»: воздух, сон, вода, пища, коммуникация (общение), движение, теплообмен, работа (труд, деятельность), воспроизводство, утилизация. Также к важнейшим, жизнеобеспечивающим относятся: пространство, время, цвет, свет, звук, запах, вибрации, связи Все эти параметры не новы, однако каждый изучается в большей степени сам по себе, и, часто разными науками. К ним окружающая природная среда и сам организм предъявляет требования, главными из которых являются чистота в обеспечении и передаче информационных сигналов и связей, возобновляемость, непрерывность, равномерность в распределении.

Важно осознавать, что эти параметры представляют собой основные энергетические и информационные параметры (компоненты) одновременно, без которых жизнь на земле также невозможна.

Главными компонентами атмосферы в приземном слое являются: азот (78%), кислород (21%), аргон (0.9%), углерод (С), кислород (О), водород (Н) и др. [2], где азот считается газом инертным. Однако, этот инертный газ, является основным элементом кода ДНК (дезоксирибонуклеиновых кислот), которая является носителем наследственной информации человека, обеспечивает программы наследственности.

Термин «здравосозидание» ввел член-корр. национальной академии республики Беларусь (НАН РБ), известный ученый кардиолог с мировым именем Аринчин Н.И.,. Он выдвинул концепцию здравосозидания, основным пунктом которой является долголетие, активное долголетие, работоспособность и их обеспечение. Также важным в его учении является то, что само по себе здоровье, сердце (даже здоровое) работать не может без насосной функции мышц (где сосуды, кровь и все другие системы организма также являются важнейшими, взаимо-со-действующими).

Здравосозидание, созидание - не отдельная программная идея, а более высокий уровень развития концепции здорового образа жизни как здоровый образ жизни и созидания, оздоровления, и в первую очередь в отношениях людей. Аналогов этому слову в европейских языках нет. Оно не исключает известные концепции «устойчивого развития», дополняя и расширяя, усиливая «устойчивое развитие», «гармоничное развитие», гармоничные отношения» внутри человека и связях с окружающей средой, в том числе, в семьях, социуме, гражданском и социальном строительстве, межгосударственных отношениях, включая экономические, ментальные (мысленные) цели и связи, где гражданская Духовная, психологическая (душевная), физическая работа человека.

Также мы наблюдаем, что при восстановлении здоровья и работоспособности организма в режиме саморегуляции и усиления обратных

связей с окружающей средой методом], организм запрашивает не только «корзину» жизненно важных вышеперечисленных параметров, но и усиливаются его творческая функция, творческие силы (со-творческая работа, энергия, чистота информационных свяей, своевременная передача информации из окружающей среды во внутреннюю о обратно).. Параллельно с физическими изменениями происходят позитивные психологические качественные изменения: улучшаются все психические функции и процессы организма, когнитивные, эмоциональные (чувства, память, мышление, воображение, стабилизируется работа эмоциональной сферы и многие другие составляющие функциональных процессов и состояний), сон. Организм человека лучше встраивается в получение информационных сигналов окружающей среды в широком понимании этого слова.

В этой связи здраво-созидание, служат важнейшими духовными компонентами духовной культуры общества. Также известны природные процессы как крещенские морозы (когда в воздухе устанавливаются низкие температуры), крещенская вода (когда вода, в определенное время года набранная, сохраняет свои высокие чистые качества на протяжении длительного периода).

Опрос более 20 тыс человек на протяжении 20 лет: «От чего зависит здоровье» к сожалению, показывает, что мало кто из пациентов, в том числе, работников здравоохранения, ученых, людей различных специальностей может сказать, что в первую очередь влияет на здоровье, формирует его и является источником резервных возможностей, формирует долголетие, причем активное, а не вегетативное с огромным списком диагнозов и таблеток.

Особенно запутанными оказывались для понимания вопросы, связанные с энергией и информацией. Даже такие распространенные параметры как «воздух», «тепло», «сон» не осознаются как энергетические параметры жизнеобеспечения человека.

К основным источникам энергии большинство относят «здоровое питание, «движение». На третье место с годами выходит «здоровый образ жизни», под которым понимается: не пить, не курить, не использовать наркотики. Что такое информация в организме человека и каким образом она влияет на организм человека, как передается – к сожалению, отмечается полная некомпетентность.

В условиях кризиса концепция, идеи, проекты, программы здравосозидания особенно востребованы. Важное значение имеют такие общественные научные объединения каким является МНОО «МАИТ» в республике Беларусь г. Минске - международное научное общественное объединение которое имеет в своем составе 10 научных секций по разным направлениям, в том числе, медико-оздоровительную секцию и организует в настоящее время при МНОО МАИТ Институт Здравосозидания ( INSTITUT ZDRAVOSOZIDANIA).

### MORPHOLOGICAL BASIS OF OBESITY W. Ovtscharoff

The morphological basis of the obesity is the excess accumulation of white adipose tissue subcutaneously, but as well around the internal organs in the thoracic and abdominal cavities. The last location is named abdominal or visceral fat. The main cell type in the white adipose tissue are the monoloculare adipocytes, but 30 -50% from cell population in this tissue are represented by monocytes, macrophages, fibroblasts, preadipocytes (immature adipocytes precursors), endothelial cells of blood and lymph capillaries, nerve fibers, immune cells. According their place of maturation the immune cells could be divided into two categories: myeloid line - macrophages, dendritic cell, granulocytes and mast cells and lymphoid line - B and T lymphocytes and Natural Killer Cells. The adipose tissue of obese individuals contains adipocytes with a gigantic lipid droplet. The obesity is accepted as a slightly different type of inflammation – lowgrade sterile inflammation. The enormous accumulation of triglycerides in the lipid droplets lead to the dead of the adipocytes. The dead adipocytes and their debris are dispersed in the adipose tissue. These causes the intensive accumulation of large macrophages in the obese adipose tissue, about three-times more macrophages, as compared with lean individual. The role of these macrophages is to remove the dead macrophages and their debris, which leads to a low-grade inflammation. It must be mentioned that the macrophages disturb the differentiation of the white adipose tissue adipocytes from the immature adipocytes precursors, which lead to the increased size of the existing adipocytes and that to the vicious circle. The obesity increase the number of mastocytes, neutrophils and B lymphocytes in white adipose tissue. Involvement of inflammation in cardiovascular disease

### FULL PROFESSOR OF INTERNAL MEDICINE AT MEDICAL FACULTYL JUBLJANA, PRESIDENT OF SLOVENIAN MEDICAL ASSOCIATION, SLOVENIA

P. Poredoš, MD, PhD,

Inflammation represents one of the most important basic mechanisms of pathogenesis of different vascular diseases, including arterial atherosclerosis and venous thrombosis. It is well known that atherosclerosis is a chronic inflammatory disease. Inflammation represents response to harmful effects of different risk factors which cause mechanical or chemical damage of vessel wall. It promotes progression of atherosclerosis and is involved in pathogenesis of atherosclerotic cardio-vascular events. Therefore, patients with risk factors of atherosclerosis and developed atherosclerotic disease have increased circulating markers of inflammation. Determination of levels of inflammatory markers helps in identification of subjects at risk for atherosclerosis and estimation of the effect of treatment and preventive management proven atherosclerotic measures used in of disease Recently, inflammation has been also accepted as a possible mechanism through which different risk factors trigger thrombus formation in veins. In one of our study we showed that in comparison to healthy subjects the patients with idiopathic venous thrombosis had significantly higher levels of inflammatory markers (CRP, interleukin-6, tumor necrosis factor  $\dot{\alpha}$ ). Further, in this group of patient's also protective interleukin-10 was decreased. Higher levels of circulating inflammatory markers were also shown in stable phase of the disease up to 5 years following acute phase of the disease. These findings support the hypothesis that the inflammation could be involved in etiopathogenesis of deep venous thrombosis. It was also shown that increased systemic inflammatory response inhibits thrombus solution and recanalization of occluded deep and superficial veins.

In conclusion: chronic systemic inflammation is involved in pathogenesis of arterial atherosclerotic disease, deep venous thrombosis and superficial venous thrombosis. It promotes thrombus formation, its progression and represents inhibitory mechanism which hampers lysis of thrombus and recanalization of occluded vessels.

### О МЕТОДЕ ОПРЕДЕЛЕНИЯ БИОЛОГИЧЕСКОЙ КОМПОНЕНТЫ В СТРУКТУРЕ СМЕРТНОСТИ НАСЕЛЕНИЯ

Романова А.П<sup>1</sup>., кандидат медицинских наук, доцент Терехович Т.И<sup>2</sup>. кандидат медицинских наук, доцент, Марченкова И.Б<sup>2</sup> <sup>1</sup>Белорусская медицинская академия последипломного образования, Минск,

Беларусь Беларусь

<sup>2</sup> Республиканский научно-практический центр медицинских технологий, информатизации, управления и экономики здравоохранения, Минск, Беларусь

Число смертельных исходов в целом и в каждой возрастной группе является суммой смертей, являющихся составляющими видовой (возрастной) и фоновой (социальной) компонент смертности, независимо от причин смерти. Биологическая компонента смертности зависит от возраста, в связи с чем, определена как видовая компонента смертности. Продолжительность жизни определена изначально биологическими особенностями, сформировавшимися на уровне популяции в процессе исторического развития, проживания на территории с характерными климатическими условиями, особенностями хозяйственного уклада и образа жизни. Как результат длительного взаимодействия популяции с изменяющимися факторами внешней среды, биологическая компонента смертности соответствует критерию исторической стабильности (Гавилов Л.А., 1979). Ее крайне незначительные изменения могут происходить в течение достаточно длительного времени. Экспоненциальный рост смертности с увеличением возраста описывает закон Гомперца. Возрастная компонента смертности, ее увеличение с возрастом обусловлено снижением адаптационных способностей организма, что является результатом старения и износа.

Закон Гомперца - Мейкема отражает принцип суммы двух типов смертности: зависимой от возраста экспоненциальной и независимой от возраста фоновой компонент. Закон описывает интенсивность смертности людей старше 20 лет и не отражает особенности смертности в ранних и предельно старческих возрастах. Социальная (фоновая) компонента смертности – часть социально зависимых смертей, то есть те, которые могут быть поставлены под социальный контроль и устранены. Путями снижения социальной компоненты смертности является улучшение условий внешней среды и повышение адаптации организмов к среде обитания.

Метод определения компонент позволяет выделить компоненты смертности путем анализа их исторической динамики через установление биологической компоненты в период резкого снижения смертности в XX столетии. Быстрое снижение смертности в указанный период было обусловлено масштабными социально – экономическими преобразованиями, которые явились результатом эффективного социального управления. Возрастные (видовые) характеристики смертности остались неизменными, социально автономными и характеризовали биологические особенности популяции. Определение биологической (видовой) стабильной компоненты смертности популяции на основании оценки показателей смертности в длительном временном периоде 50 и более лет, позволяет установить уровень социальной компоненты смертности и ее динамику, как результат усилий общества по контролю над смертностью.

определения биологической Для компоненты смертности с использованием предложенного метода использованы таблицы смертности населения Республики Беларусь. Биологическая компонента смертности определялась по статистическому минимуму возрастных коэффициентов смертности за период 1959 – 2015 годы. Каждая таблица смертности предполагает сохранение условий жизни и здоровья населения на период ее составления и ближайшие к ней годы. В связи с происходившими изменениями в состоянии здоровья, силе смертности, средней продолжительности жизни для проведения их сопоставления в разработку взяты данные за период 1959 – 2015 годы. Выбранный временной период определен также, сроками ввода, внедрения и становления стабильного статистического учета движения в населения Республике Беларусь, каковым является 1959 год. До 1959 года данные о естественном движении населения носят разрозненный и несистемный характер, что не может обеспечить достоверность полученных данных.

Минимальное значение возрастных коэффициентов смертности как показатель имевший место при наиболее благоприятных условиях внешней среды, позволяет пренебречь фоновой компонентой. Показатели биологической компоненты смертности исчислялись по гендерному признаку и территории проживания. Метод определения биологической компоненты смертности проводится с использованием таблиц смертности за определенный временной промежуток.

Отсутствие необходимости в данных о причинах смертности является неоспоримым преимуществом метода. Использование методы определения биологической компоненты смертности позволяет установить уровень, выявить динамику изменения социальной (управляемой) компоненты смертности и открывает новые возможности по разработке и реализации мероприятий, направленных на управление здоровьем населения, через снижение повозрастной смертности.

### SYSTEM TRAINING MILITARY MEDICAL PERSONNEL IN THE REPUBLIC OF BELARUS

Sviataslau Shnitko, Professor, M.D., Ph.D , Republic of Belarus.

Training System provides the legal framework, human resources (faculty) and logistics. The main components of a modern system of training of military medical personnel are in the Republic of Belarus: pre-university preparation, undergraduate training and additional education specialists.

The main tasks are preparatory training for junior and medium military and medical personnel, as well as attracting to study at university the best prepared young people.

Pre-diploma training of officers of medical service in the military-medical faculty in the educational establishment "Belarusian State Medical University" (hereinafter - VMedF) - this is a basic 6-year higher medical education, providing training of doctors, capable of carrying out high-quality medical care, both in the military and civilian health care .In the formation of a military doctor (officer m/s) involved 62 departments of the Belarusian State Medical University and 4 chairs VMedF.

After the release of military doctors to monitor VMedF conducted postgraduate career development, improvement and graduates career.

Planning and organization of additional education of medical staff and nursing staff Sun RB carried out on VMedF.

Part of the medical staff of the Defence Ministry held training and improvement (at least 1 time in 5 years), in agreement with the Ministry of Health in BelMAPO and training center, retraining and advanced training of Ministry of Health of the Republic of Belarus and its affiliates.

The highest form of postgraduate education is a clinical residency. It is carried out by 2 full-time one year's training plan. For teacher training departments VMedF designed adjuncture. In 2007, it is open to VMedF in internal medicine, surgery and military medicine. In some battalions provide a small number of staff in lieu of medical positions entered medical assistant. In connection with this, a system of post-graduate training at the military paramedics VMedF.

Thus, in the Republic of Belarus has established and operates a harmonious system of training of military medical personnel. The main element of this system is the Military Medical Faculty in "Belarusian State Medical University."

# DAMAGE CONTROL ORTHOPAEDICS – THREE YEARS EXPERIENCE. A CLINICAL CASE

Spassoff V. doctor, Kazalakova K. Ph.D, Vlahova T. First Traumatology Clinic, Emergency Hospital, Sofia, Bulgaria Department of "Physical Medicine and Rehabilitation", Sofia, Bulgaria Emergency Hospital, Sofia, Bulgaria

**Introduction:** Polytrauma traditionally considered a problem in action, but in recent decades, steadily increasing the scale of polytrauma in peacetime. Today

polytrauma is a major cause of mortality in people under 40 years of age. This situation has led to the concept of war trauma in peacetime.

Methods: During 24 months study period a total 180 high-energy

Methods: During 24 months study period a total 180 high-energy polytraumatized patients were admitted.
81 patients out of the 180 /45%/ were classified as borderline /EHP-BL/.
Results: Clinical case - G.G. 41, BL, Brain concussion, Lung contusion, Fx Pelvis/AO C type, Fx Femur<sup>r</sup> /C type open fx, Fx tibia<sup>r</sup> = ISS 48. At admission: BP 108/70, Heart rate 100, Hb - 130-105, Ht -0,40-0,33, PLT -224-189. At Emergency Theatre: Ex Fix AO Femur<sup>r</sup>, Ex Fix AO Tibia<sup>r</sup>, Ex Fix Pelvis C clamp/Synthes, Drenage 600 ml. OP Time 45 min., ICU 23 days. Conversion - 6 post op.day MIPO LCP Zimmer, CS 3 Zimmer – op. time 80 min.

Conclusions: Having with targeted training and increasing the knowledge and skills of employees "first line". In connection with this topic is highly relevant DCO. The injury is a major factor disablement, poor long - term psychosocial status and permanent disability. It is an economic burden to society with a lasting impact on the individuals concerned and their families.

### **VESICO-SIGMOID FISTULA**

Prof. Gia Lobzhanidze MD, PhD, ScD.<sup>1</sup>; Besarion Iremashvili MD, PhD.<sup>2</sup>; Prof. Dimitri Kordzaia MD, PhD, ScD<sup>1</sup>; Zaza Khachiperadze MD, PhD<sup>1</sup> <sup>1</sup>Ivane Javakhishvili Tbilisi State University - Georgia; <sup>2</sup>Tbilisi State Medical University - Georgia

Vesico-sigmoid fistula is a rare pathology. It belongs to the entero-vesicular fistulas group, which is divided into four main categories: colo-vesicular, recto-vesicular, ileo-vesicular and appendiculo-vesicular. The reason for vesico- sigmoid fistula formation can be: Congenital - unfinished separation of the urinary and digestive tract during embryogenesis; Acquired: a variety of inflammatory conditions, tumors, trauma, iatrogenia.

Generally, 0,6% of colon cancers complicated with colo-vesicular fistula. It is three times more common in men than in women. Fistulas complications can see rarer because of diagnosis and treatment of cancer, especially sigmoid colon cancer, with the high-tech modern diagnostic methods is possible now before the disease complications. Fistula formation is based on the growth of sigmoid colon cancer in bladder

wall, its destruction and as the result - the fistula formation. On the basis of the pressure gradient, usually the bulk passage happens from sigmoid colon to bladder.

In the clinical picture of the vesico-sigmoid fistula prevails the clinical picture of urinary tract infection and this is mainly reason to see the doctor. Elective treatment method is operative.

Our demonstration case represents bladder wall destruction and vesicosigmoidal fistula formation in case of sigmoid colon adenocarcinoma penetration in the back wall of bladder.

In June of 2015, the patient with the difficult septic condition was hospitalized in the 1<sup>st</sup> University clinic. Complained about the permanent character of moderate subpubic, frequent and painful urination, tenesmus, mudded and smelled urine, excrements and air bubbles excretion from urethra, severe general weakness, hectic fever, sweating, weight loss 8 kg in 5 months.

Anamnesis: During two weeks, because of the cystitis diagnosis treated at home with antibiotics (cyprofloxacine). Hemogram was significant because of leukocytosis (23.4 .109 / l), a sharp shift to the left (band neutrophils - 14%), Urine – Piuria; Bacteriological - E. coli. CT Diagnostic - were identified the penetration of sigmoid colon cancer in the back wall of bladder, communication between the bladder and sigmoid colon lumens, pneumaturia. Colonoscopy – ascending from anus in 34 cm were seen tumor with anatomical growth, which incompletely strangled sigmoid colon lumen. Later, the taken biopsy material study revealed the existence of low differentiated adenocarcinoma. Because of the patient heaviest and complicated condition, radical surgery have been abstained. In the 1<sup>st</sup> stage, the patient underwent preventive double barrel transversostomy; Bladder catheterization; Powerful antibacterial and desintoxication treatment. Septic condition removed. 2nd stage – after three weeks - was done radical surgery: Resection of sigmoid colon JFSB46, Closure of vesicointestinal fistula KCSH30. Later 3<sup>rd</sup> stage - after 6.5 months - - patient underwent trensversostomy liquidation and colo-colostomy formation JFSC30. The patient recovered and discharged from hospital.

### BEHAVIOR OF TUBULAR STRUCTURES IN LIVER REGENERATION AFTER PARTIAL HEPATECTOMY

N. Inauri<sup>1</sup>, M. Jintcharadze<sup>3</sup>, G. Lobzhanidze<sup>1,4</sup>, <u>D. Kordzaia<sup>1,2</sup></u> <sup>1</sup>Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia <sup>2</sup>Alexandre Natishvili Institute of Morphology, Tbilisi, Georgia <sup>3</sup>Shota Rustaveli Batumi State University, Batumi, Adjara AR, Georgia <sup>4</sup>Georgian Medical association, Tbilisi, Georgia

The number of researches dedicated to liver regeneration after partial hepatectomy (PH) has been rapidly increasing over the last few decades. It is established, that after partial hepatectomy, liver regeneration occurs with the return of hepatocyte mass to normal. However, the transformation of intrahepatic bilio-vascular tree after PH is actually left beyond attention. There is insufficient evidence how the intrahepatic branches of portal vassals react. Limited data exist also regarding the renewal of biliary tree after partial hepatectomy. Is the volume growth of the regenerating liver associated with the "development of the new branches" or the "prolongation/growing" of the portal tubular structures?

In order to identify the behavior of the tubular structures in regenerating liver we performed the attempt to use the method of "corrosion casts". For the modeling of portal tubular structures of 6 Wistar Rats subjected 70% PH by standardized (two knots method - Mitchell and Willenbring, 2008), we used the kit of "Protacryl-M" (widely implemented in dental practice) including both liquid and solid components in addition to colored pigments. 6 animals were served as a control group.

The analysis of the obtained casts revealed that they evidently reflect the architecture of studied vascular structures and are completely convenient for the

relevant description/measurement of branching, surface, length and diameter of the different fragments.

The comparison of sizes and types of branching of the corrosion casts of portal tubular structures in the right and caudate lobs of liver from rats of both – target and control groups – on the 7<sup>th</sup> day after PH supports the opinion that during liver regeneration both types of growth of portal tubular structures – "prolongation" as well as "sprouting" – take place. The septal and interlobular tubular structures are mainly subjected to sprouting while the wider branches are exposed to prolongation.

### WHAT IS NEW IN ASTHMOLOGY?

Gjorchev A., Jovanovska Janeva E., Goseva Z., PHI University Clinic of Pulmonology and allergology, Faculty of Medicine, Skopje, Macedonia

Today in asthmology reality is the position that asthma mandatory have genetic predisposition (background) where multiple genes are involved and influenced by environmental factors (epigenetic) comes to clinical expression of the disease. Also is a reality that the asthma and COPD represent the leading chronic respiratory diseases, and today suffer over 300 million people worldwide, and thatnumber isexpectedtoreach 400 millionby 2025. Characteristic mechanisms of asthma include inflammation, hyperreactivity and structural changes in the airways and the lungs. Many different sequences of these complex pathophysiological processes and mediators are involved in this disease, and this important thing are classified and defined in recent years. These different pathways may explain many of the clinical phenotypes, symptoms and exacerbations, and perhaps natural history, and evolution of the disease.

Today in asthmology the optimistic experts think that in 2-3-5 years the research in the world will lead to a significant improvement in treatments and that will stop asthma developing. "(John Rees).

But the skeptics believe that there is along and uncertain way tore solving his big enigma called asthma.

"Of course in every science there are numerous controversies. I will enumerate some of these controversies, which will be presented and discussed:

- Roles and significance of IL-4, IL-5, IL-13, IL-17, IL-25, IL-33, TSLP: thymic stromal lymphopoietin) in patients with asthma;
- Specific allergen DNK;
- Interventions in the environment, diet rich with oil fish and green vegetables;
- Combinations of immunization against Respiratory Syncytial Virus (RSV), or rhinovirus;
- New forms of specific hiposensibilisation therapy
- Whether removing the defectin production on Lipoxin A4 will allow for resolution of inflammation in asthma?
- Definition of every individual anti-phenotypic treatment.
- Defining the place of the new anti-IgE therapy.

- What are the optimal responders to treatment with bronchial thermoplastic in severe asthma?
- Is it possible to control asthma without drugs (CPAP)
- Whether the new ICS (Ciclesonide), or the new ultra-LABA (Indacaterol) and the new inhaled medications will make progress in the treatment of asthma?

Certainly there are many other facts in asthmology reality but there also so many controversies which will be presented and discredited.

### OUR EXPERIENCE IN HYSTEROSCOPIC MYOMECTOMY IN GYNAECOLOGY

Jadranka Georgievska, Gligor Tofoski

University Clinic for gynecology and obstetrics, Medical faculty Skopje, R Macedonia

**Background:** Uterine leiomyomas are some of the most frequent benign tumors that occurs in 20 to 30% of women of reproductive age. Symptoms are correlated more with the location than the size of the tumor. Hysterectomy and laparotomic myomectomy used to be treatment of choice in patients with abnormal uterine bleeding and abdominal pain. More conservative and less invasive techniques, such as hysteroscopic myomectomy, are now widely used for treatment of patients with submucous leiomyomas. We can used hysteroscopic myomectomy for the treatment of the uterine myomas with diametar less than 5 cm. The technique is based on the use of bipolar energy to divide tha mass of the myoma into portions from the surface to the base. The fragments after that can be removed with mechanical instruments.

The aim of this study was to evaluate the results in hysteroscopic myomectomy of our patients.

**Materials and methods:** In retrospective study we evaluated results from hysteroscopic myomectomy of 20 patients operated on University Clinic for gynecology and obstetrics in Skopje, R Macedoniain the period from01.01.2015 to 01.01.2016. We used bipolar resectoscope for leiomyoma resection. The uterine cavity was distended with sorbitol/mannitol solution. We used constant irrigation bysuctionirrigation pump.

**Results:** In the period from 01.01.2015 to 01.01.2016 on University Clinic for gynecology and obstetrics in Skopje, R Macedoniahysteroscopic myomectomy was done in 20 patients. The patients were  $32\pm2$  years old. The main diameter of the leiomyomas was  $2.5\pm0,5$ cm. In all cases histopathological egzamination confirmed diagnosis of uterine leiomyomas. In two cases (10%) second hysteroscopic procedure (2to 3 months later) as the result of the migration of the intramural component of the myomasinto the uterine cavity was used. We had no serious complications during and after hysteroscopic operations. In cases with uterine bleeding during the hysteroscopy we used uterotonic drugs and selective coagulation.

**Conclusions:** Hysteroscopic myomectomy is effective and minimal invasive technique for treatment of patients with submucous leiomyomas with uterine bleeding and infertility.

### CORNUAL PREGNANCY – A CASE REPORT University Clinic for Gynecology and JadrankaGeorgievska, Valentina Tofilovska

Obstetrics, Medical faculty Skopje, R Macedonia

An interstitial pregnancy is pregnancy located outside of the uterine cavity in the part of fallopian tube that penetrates the muscular layer of the uterus. Cornual pregnancy is located in the horn of a bicornuate uterus or in the corner where the tube connects. These pregnancies account 2-4% of all tubal pregnancies. Patients with cornual pregnancies have a 7-times higher mortality than those with ectopics in general.

We present a case with cornual pregnancy diagnosed in 35 years old patients that come on our Clinic because of abdominal pain and vaginal bleeding. Serum level of human chorionic gonadotropin was 24195 mIU/ml. Transvaginal ultrasonographic evaluation confirmed pregnancy located in the right corner of uterus. Laparotomy with cornual wedge resection and salpingectomy were done. Histopathological examination confirmed diagnosis of cornual pregnancy.

**Conclusion:** Ultrasonographic evaluation is helpful method for diagnosis of cornual pregnancy. Surgical methods to remove the pregnancy include: cornualincision with removal of the pregnancy (cornuostomy), resection of the cornual area usually combined with salpingectomy and hysterectomy. Surgical interventions depends by the clinical situation and can be done either by laparoscopy or laparotomy.

### COMPRATIVE ANALYSIS OF SOME SELECTED PLASTIC OPERATING PROCEDURES AFTER SELF INJECTION OF PARAFFIN IN THE PENIS

Nader Al-Khalil\*, P.Panchev\*\*, D.Damyanov, S.Manolova, M.Banova

### \* - Multi Profile Hospital "St. Mary"- Sofia

\*\* - University Multi Profile Hospital "Aleksandrovska", Department of Urology -

Sofia

**Introduction:** Self injection of paraffin or other highly viscous oil compounds in the penis to increase its size is very common in Asia, Russia and Eastern Europe. The phenomenon occurs when prisoners, drug addicts, under the influence of alcohol and bad company. Complications after self injection of paraffin in the penis are catastrophic and irreversible - a severe deformity of the penis and scrotum, phimosis, necrosis of the skin of the penis restricted erectile dysfunction, inability to perform sexual intercourse, abscesses, gangrene and others.

**Materials and Methods:** Extended operated patients for the period 2000 - 2015 - 27 patients, aged 25-55 / Average 40 /. They were made these plastic surgery: 1. The one-act plastic surgery / 7 / with bilateral scrotum flaps. Of these, at first ill need to make secondary correction, then the spontaneous morning erections. 2. Two-act plastic surgery with disposal of the penis into the scrotum / 12 /, after clean off thel paraffin from the penis is buried in the scrotum. On the second stage is a re-release plastic penis of the scrotum. 3. Direct or indirect / 8 / aggressive excision affected by foreign body skin and subcutaneous tissue.

**Results:** \*- One- act plastic surgery with bilateral scrotum flap is relatively secure method easy method and devoid of unexpected complications playback operating procedure. \*- Two-act plastic penis with burial in scrotum, also gives good satisfactory

results. The result is a penis covered with a skin of the scrotum, but a small penis. \*-Direct and indirect excision gives good results under strict indications little affected skin and free of vascular pathology of the skin of the penis.

**Discussion:** Plastic surgery in skin grafts from the abdomen or scrotum, we have avoided because of the danger of severe appear large necrosis or gangrene. After a simple excision, the incidence of complications and relapses are possible. Before surgery, patients must be clear what caused ourselves because in unsuccessful operational plastic surgery, they are trying to blame the operator. This explains the reluctance of other colleagues have interest in this kind of operations. In these operations, patients must be armed with patience, trust the operator and have a preoperative psychological preparation.

**Conclusion:** Whatever the treatment to take place, it is impossible to return to the original state of the penis, but it is important to achieve a better quality of life and to regain confidence in the current male suffering.

Selection of operational plastic surgery is strictly individual approach and depends on the anticipated possible post operative complications and recurrences.

Self injections of paraffin in the penis are aggressive psycho-social trauma of people in the most active age, the family and its role in society.

**Keywords:** paraffinoma, penis, penis enlargement, autoinjector of paraffin, erectile dysfunction sclerosis lipogranuloma.

### OCCUPATIONAL ALLERGIC DISEASES OF THE UPPER RESPIRATORY TRACT AND FUNCTIONAL DIAGNOSTICS OF THE OLFACTORY ANALYZER

A. Medzhidiev, D. Medzhidieva

ENT Department, N.I.Pirogov University Multiprofile Hospital for Active Treatment and Emergency Medicine, Sofia, Bulgaria

ENT-Otoneurogy Department, Clinic of Occupational Diseases, St. Ivan Rilski University Multiprofile Hospital, Medical University, Sofia, Bulgaria

Objective changes in the upper respiratory tract and functional disorders of the olfactory analyzer in workers with occupational allergic diseases are evaluated through ENT examination and subjective olfactometry (olfactometer Dimov-Raikov, Elsberg-Levy blast-injection technique of odor measurement). The aim of the authors is to evaluate the olfactory function in workers with allergic diseases of the upper respiratory tract by determining the odor threshold value (function of the olfactory receptor zone) and the odor recognition threshold (function of the central structures) in perceiving aromatic substances by the three elements of the olfactory analyzer. One hundred and two workers were examined and grouped according to age and length of service. Chronic professional non-seasonal allergic rhinosinuitis results in pronounced changes in the functioning of the olfactory analyzer. The altered function of the nose leads to an increased risk of occupational diseases of the upper respiratory tract.

Key words: Occupational disease, olfactometry, allergic diseases of upper respiratory tract.

### EFFECT OF PRODUCTION NOISE, VIBRATIONS AND TOXIC-CHEMICAL FACTORS ON THE HEARING SENSITIVITY IN WORKERS IN THE FOUNDRY INDUSTRY

D. Medzhedieva, A. Medzhidiev

ENT-Otoneurogy Department, Clinic of Occupational Diseases, St. Ivan Rilski University Multiprofile Hospital, Medical University, Sofia, Bulgaria ENT Department, N.I.Pirogov University Multiprofile Hospital for Active Treatment and Emergency Medicine, Sofia, Bulgaria

Subjective and objective audiometry methods were used to carry out an audiological evaluation of hearing sensitivity in workers exposed to production noise, vibrations and toxic-chemical factors in the foundry industry. One thousand one hundred and eleven workers were examined, distributed in groups, according to sex, age, and length of service. Audiometric screening, subjective audiometry (threshold audiometry, above-threshold audiometry) and impedancemetry were used. In 112 selected workers auditory brainstem evoked potential (ABEP) tests were made. Bilateral sensory-neural hearing loss (broad frequency) was observed, correlated to the degree of exposure; positive above-threshold tests for adaptation, re-adaptation and hearing fatigue. Objective adiological tests indicate extended latent times for I and I-III potentials. V potential is characterized by consistency. The audiological evaluation of hearing impediments in workers exposed to harmful factors in the foundry industry makes it possible to develop a strategy for prevention of permanent hearing loss.

Key words: Occupational disease, audiometry, hearing loss

# EXECUTIVE AGENCY "MEDICAL AUDIT" AND ITS ROLE IN QUALITY MANAGEMENT

Prof. Zlatitsa Petrova, MD, EAMA Executive Director

Executive Agency "Medical Audit" was established by art. 116a, 3 of the Health Act (enacted on the 1th of July 2009) and by art. 55 of the Administration Act as well as under recommendation by the European Commission in accordance with measure 42 for "Establishing Agency "Medical Inspectorate". The Agency started working on the 1st of January 2010 according to the adopted by the Health Act (art 116a) Rules of Organisation. The Executive Agency covers the whole territory of Republic of Bulgaria and presently, the Health Act does not foresee establishing regional structures. The Agency is administrative structure under the Minister of Health, based in Sofia. The Agency is financed by the national budget via the Ministry of Health and by own revenues. The structure includes general and specialized administration in four directorates, and a security officer. Ever since its establishment the EAMA works for improving the quality and safety of medical treatment which is stipulated in the Agency's mission, vision and strategic aims. The main instrument for putting in practice the mission, vision and strategic aims of EAMA is provided by law; control over medical treatment of citizens, medical control over activities, connected to obligatory and voluntary health insurance. The work of the Agency for the six years (2010-2015) since its establishment is taking place in conditions of:Political instability,

particularly in the health sector; Continuous intentions of various governments to reform the health sector, which causes insecurity for medical specialists and health establishments; Widespread corruption; Dissatisfaction of population from the existing health system and the request for higher quality services in conditions of limited financial resources. It was empirically demonstrated through the Agency's six years thorough experience and analysis that the key issues is not the insufficiency of financial resources but the lack of criteria and indicators for assessment and control of quality in healthcare. The conclusions can be summarized in several main directions: Quality fluctuations in the delivered medical care. The Agency inspectors drew a number of conclusions on the basis of their controls. One fact is that there is a sizeable difference of quality of medical services which patients received in different regions in Bulgaria. Through the Agency control functions, a number of factors which influence safety of medical treatment have been defined: Lack of a system for recording medical mistakes due to lack of knowledge, fear of accusation, fear of termination of contract, isolation etc; impossibility to draw needed conclusions with the aim of preventing the same mistakes again and improvement of the system;Lack of a risk management system as a process for identification, evaluation, analysis and management of all potential risks, which directly or indirectly influence patient safety while in medical care;Inadequate number and mix of necessary medical personnel; Inadequate training in patient safety, including recording of medical mistakes;Lack of a system for obligatory continuous medical education.

### SKIN CHANGES RELATED TO END-STAGE RENAL DISEASE

Suzana Nikolovska, Katerina Damevska, Georgi Gocev, 1Daniela Chaparevska, University Clinic of Dermatology, Skopje 1University Clinic of Toxicology and Emergency Medicine, Skopje

**Background:** Diseases of the skin frequently indicate, or associate with, diseases of the kidneys.

A broad range of skin diseases occurs in patients with end-stage renal diseases (ESDR): from the benign and asymptomatic to the physically disabling and life-threatening.

Aim: To review and provide an update on the cutaneous manifestations of ESRD.

**Discuussion:** Cases of pigmentation, pruritus, perforating disorders, calcinosis cutis, premature ageing of the skin and actinic keratosis, bullous eruptions mimicking porphyria cutanea tarda (pseudoporphyria of haemodialysis), the venous hypertension syndrome with or without ulceration mimicing pseudo-Kaposi's sarcoma and nephrogenic systemic fibrosis are presented. The epidemiology of skin changes among patients with ESRD, underlying pathophysiology and treatment option are considered.

**Conclusion:** The prevalence of ESRD is increasing, and it is, therefore, likely that the incidence and prevalence of associated skin diseases will also increase. Their early recognition and treatment to reduce morbidity and mortality and improve these patient' quality of life are essential.



