EVALUATION AND RECOGNITION OF PHYSIOLOGICAL TRAINING IN THE NATIONAL INSTITUTE OF AERONAUTICAL AND SPACE MEDICINE
Adrian Macovei, M.D., Dr. Dragoş Vlad M.D., Dr. Dragoş Popescu M.D., Ph.D.

Summary
Will be presented the steps for evaluation of the physiological training program and the recognition certificate handled to The National Institute of Aerospace Medicine, detailing the history of the program, recent achievements, the evaluation visit and the obtain of recognition certificate.

NEW APPROACHES IN MANAGEMENT OF ARTERIAL HYPERTENSION
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Summary
European Society of Hypertension (ESH) and European Society of Cardiology (ESC) have published in June 2013, after 6 years, the 2013 ESH/ESC Guidelines for the management of arterial hypertension, that makes some significant modifications compared to previous recommendations (2007). Knowledge and implementation of these Guidelines is important in routine practice of any cardiologist, internist or general practitioner.
Key words: ESH, ESC, arterial hypertension (HT), guidelines

ASSESSMENT OF ANGINA PECTORIS BY MULTISLICE CT IN EMERGENCY DEPARTMENT
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Summary
Acute coronary syndromes are a frequent cause of presentation to the Emergency Department. Within the typical adult population over 30 years with chest pain type visceral, almost 15% have heart attacks and 25-30% have unstable angina. In acute coronary syndromes, most useful test for detecting both acute ischemia and for risk stratification is ECG. Further testing in acute chest pain generally used echocardiography, determination of serum markers of cardiac injury and specific investigations depending on clinical circumstances. The evolution of techniques of CT and multislice CT scanners has allowed the implementing of non-invasive methods with good spatial and temporal resolution in coronary evaluation. This review aims at describing the basic principles of assessment methods of angina pectoris by multislice CT in monitoring UPU, pursuing clinical applications standardization for this method.
Key words: acute coronary syndrome, imaging, multislice CT

ORAL MICROBIOTA EVALUATION IN TOTAL EDENTULOUS PATIENTS WITH AND WITHOUT DENTURE STOMATITIS FROM CRAIOVA
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Summary
Statement of problem: the lost of teeth, as well as the wear of the complete denture determine the balance alteration of the oral ecosystem at total edentulous patients. Contamination by microbial flora of the complete dentures is different from those with denture stomatitis compared to those without denture stomatitis.
Objectives: the purpose of this study was to evaluate oral microbiota of the patients wearing complete dentures, with and without denture stomatitis and to determine if the composition of the microbial flora changes when passing it from the mucosa surface into the denture surface.  

Material and methods: the study was carried out on a number of 26 complete denture wearing patients from Craiova City, Romania. The clinic examination proved the existence or nonexistence of the denture stomatitis. Samples of microbial flora were taken from the surface of the acrylic dentures and palate mucosa. The bacteria and fungi were identified by using the clinical laboratory standard procedures.  

Results: oral saprophytic flora was identified at 11 patients. \textit{E.coli} was identified in one case only. \textit{C.albicans} and \textit{S.aureus} were identified at 4 of the patients without denture stomatitis. There were no differences noticed between the microbial flora of the dentures and that of the palatal mucosa.  

Conclusions: the microorganisms specific and nonspecific for the oral cavity were found in dentures worn by patients with and without denture stomatitis. Also, the pathogenic microorganisms were identified in dentures of some patients without denture stomatitis.  

Keywords: oral microbial flora, total edentulous patients, complete denture, denture stomatitis.

CRYOSURGERY FOR COLORECTAL LIVER METASTASES  
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Summary  
Background: the aim of this prospective study is to assess the outcomes of cryosurgery as a single treatment or as a part of complex treatment for colorectal liver metastases.  
Material and Methods: between 2001 and 2011, to our institution, 27 patients underwent cryosurgery for colorectal metastatic liver tumors. The procedure was performed via open surgery and postoperative follow-up managed with CT scan in day 7 and then at every 3 month interval in the first year and each 6 months for the next 2 years in correlation with tumor markers level.  
Results: intraoperative complications occurred in 6 patients and postoperative in 9 patients. Operative mortality within 1 month was 3.7% related to cryosurgery and the median follow up was 27.4 months (range from 1.6-41.2 months). The survival rates were 81.48% to 1 year, 73.68% to 2 years and 20.68% to 3 years. During the follow-ups, 11 out of 27 patients (40.7%) have died, 16 patients (59.2%) were alive and 7 of them (25.9%) being with no evidence of recurrent disease.  
Conclusion: cryotherapy is a safe and effective procedure indicated especially for patients with unresectable lesions or high risks for surgical resections. The antitumor effect of treatment was demonstrated, but complications and high local recurrences rate, especially to the patients with large disease, should caution against its use.  
Keywords: hepatic cryosurgery; liver tumors; liver metastases; liver tumors; tumor ablation.

THE EVALUATION OF THE SURFACE MORPHOLOGY OF ERYTHROCYTES AND LEUKOCYTES IN MULTIPLE MYELOMA BY ATOMIC FORCE MICROSCOPY  
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Summary  
Objective: to observe the difference in surface morphology between erythrocytes and leukocytes from normal human subjects and from patients with multiple myeloma.  
Methods: bone marrow was collected from five normal human subjects and five patients with multiple myeloma. The surface morphology of the erythrocytes and leukocytes were observed with an optical microscope and an atomic force microscope.  
Results: no significant difference was identified between the surface morphology of erythrocytes and leukocytes of healthy subjects compared with patients with multiple myeloma under optical microscope. With an atomic force microscope, there were observed many spicules on the surface of the
erythrocytes and leukocytes of the patients with multiple myeloma and an important difference of roughness between erythrocytes and leucocytes from healthy subjects compared with erythrocytes and leucocytes from the patients with multiple myeloma.

**Conclusion:** AFM had advantages in analyzing cell membrane in the nanometer level and showed that erythrocytes and leukocytes from the patients with multiple myeloma have a rougher surface structure and increased adhesion compared with erythrocytes and leukocytes from healthy subjects.

**Key words:** atomic force microscopy, surface morphology, erythrocytes, leukocytes, multiple myeloma

**THE RESISTANCE TO ANTIMICROBIAL SUBSTANCES OF THE UROPATHOGEN PHENOTYPE OF ESCHERICHIA COLI – THERAPEUTICAL AND CLINICAL IMPLICATIONS. EVOLUTION DURING 17 YEARS STUDY**

Simona Berar M.D., Simona Berbecar M.D., Ph.D.

**Summary**

**Objective:** urinary tract infections are one of the most frequent causes of patients complains and *Escherichia coli* is still the main etiologic agent of these. Its antibiotic resistance suffered different variations in time.

**Materials and methods:** in the Clinical Laboratory of INMAS, the microbiology department, there were performed 13961 urine cultures between 1996 and 2012. 34.15% were positive for different microorganisms’ infections and *E. coli* caused 53.88% of these.

**Results:** regarding the resistance to antibiotics, one could notice that:

- to the β-lactams there was a low sensitivity (<60% of the strains), but if there is added an inhibitor of β-lactamases, the sensitivity of the strains was increased, at least after 2007;
- to the cephalosporins: there is a high sensitivity to the third generation antibiotics (Ceftriaxone, Ceftazidime: 80-90%), which was almost constant in time, but to the other generations, the sensitivity is lower (<65%);
- to carbapenems there is a high and constant sensitivity (more than 90% after 2006);
- to the aminoglycosides, the sensitivity is still high (70-90%), but it begins to show fluctuations in time;
- of the fluoroquinolones, the sensitivity to Ciprofloxacin of the *E. coli* strains is approximately constant (75-90%) and there is a fluctuant sensitivity to Norfloxacin;
- the sensitivity to Tetracyclines and to Cloramphenicol is low and fluctuant (15-20%);
- there was noticed a sensitivity to Cotrimoxazol, which presents an increasing trend, until it reached 73.77%, such as to Nitrofurantoin, for which the sensitivity increased from 40% to 91%;
- the sensitivity to the Nalidixic acid was maintained relatively constant (40-50%), with a peak in 2007 (83.78%).

**Conclusions:** there is still a high prevalence of urinary tract infections caused by *E.coli*. The antibiotic susceptibility of *E. coli* strains suffered different variations in time, the most important one being the continuous trend of high sensitivity to Nitrofurantoin and Cotrimoxazol. Knowing this trend is valuable in establishing the efficient therapeutic strategy of urinary tract infections, both for the aeronautical personnel and the patients of the health insurance companies.

**Key words:** antibiotic resistance, uropathogen phenotype, *Escherichia coli*. 
Summary

Introduction: projective methods fall on a continuum between psychometric testing techniques and clinical therapeutic techniques. “Incomplete Sentence” is among the top 10 most users from psychological personality investigative techniques and the third sample projects, such as frequency in battery test. In Laboratory of Psychology of I.N.M.A.S., personality is evaluated using Q&A type questionnaires and projective tests, which allow a higher degree of freedom related to subject’s answers. The Incomplete Sentence Test is a projective task where there are given a series of incomplete sentences for finishing. By evaluating the responses, an evaluator makes some judgments about the subject’s personality.

The aim of this study is to state the degree of correspondence between the results from personality questionnaire and those obtained using incomplete sentence test application.

Material: the test we used is composed by 22 phrase beginnings which are administrate in a paper-pencil way with no time limitations. The test is applied during first psychological examination (in selection phase).

Method: a number of 3680 phrases were qualitatively analyzed. The similar responses were grouped in response-categories. A number of 179 were established (between 4 and 16 categories per phrase). These categories were clustered in dimensions for analyze. In this stage of the research we focused on the dimension named need of performance, defined both by the individual’s need for competition, for achievement and the tendency to dominate and control.

Results: the component scales of need of performance dimension were correlated with the main data from personality questionnaire applied in usual psychological evaluations. Some significant associations between data were observed.

Key words: personality psychological evaluation, incomplete sentence blank test, need of performance