HIGHLIGHTING THE ALTERATIONS PRODUCED BY THE EXPOSURE TO HYPOXIA-LOW PRESSURE CONDITIONS UPON THE BLOOD MARKERS

Daniel Hurubean M.D., Ilie Capanu M.D., Angelica Raicu ass.

SUMMARY

Objective. Highlighting the human body's response to an intense stress such as the one generated by exposure to altitudes higher than 5,000 meters, under hypoxia and low pressure conditions, by measuring the blood markers.

Material and Method. A sample of 36 subjects has been composed, flying crew, average age 22, subjected to hypoxia and low pressure conditions by means of a low pressure chamber. The subjects values of blood markers have been measured and compared before and after being exposed to the aforementioned conditions.

Results. It has been revealed that the exposure of the body to hypobaric hypoxia favors the increase of the syderemia, the lipase, LDH, the triglycerides, the total bilirubin and the TGP. After the exposure, the values of the hemoglobin, the hematocrit, the amount of proteins decreased whereas the values of the cholesterol, the creatinine, the uric acid, the albumin and Gamma-Gt slighty diminished while maintaining a large percentage of the values that remained unchanged before and after the barochamber test.

Conclusions. In the aftermath of the study, we have found that the exposure of the human body to hypoxia and low pressure conditions develops alterations of the biological markers that accompany modifications in the heart and lung activity.

Key words: hypoxia, low pressure, blood markers.

NIGHT VISION IMAGING SYSTEMS – HUMAN FACTORS ISSUES

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SUMMARY

The paper is providing some basic information on NVGs and some human factors issues relevant to NVG design and use (image field of view, field of regard, system resolution and aided visual acuity, image peculiarities resulting from the optics and the image intensification process, increasing operator workload, etc).

Several important aeromedical considerations and recommendations are listed in the end.

Keywords: night vision goggles, NVG, flight operations.

INCRETINE BASED THERAPIES-A POTENTIAL TREATMENT FOR AERONAUTICAL PERSONNEL WITH TYPE 2 DIABETES

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SUMMARY

The two classes of therapeutic agents approved in the treatment of diabetes mellitus type 2, GLP-1 agonists and DPP-4 inhibitors acting for the potency of the signal at the level of the incretin receiver, there is no risk of hypoglycemia.

In this context, the use of incretin mimetics could be accepted by PIAC-MED with biguanids and alpha-glucosidase inhibitors and glytazones.

Key words: incretines, GLP agonist, DPP-4 inhibitors, aeronautical

SLEEP RELATED BREATHING DISORDERS

Dr. med. Martin Konermann

SUMMARY

Sleep Related Breathing Disorders are disturbances of the respiration, which occur only in sleep or show a considerable impairment in sleep. In big epidemiological studies up to 10 % of the population are afflicted in a relevant range. More than one third of the entire population are snorers.

OSTEOGENESIS IMPERFECTA – CLINICAL, THERAPEUTICAL AND ETHIOPATHOGENIC ASPECTS

Manuel Bucur M.D., Ileana Bucur M.D., Senior Lecturer Gilda Mologhianu M.D., Ph.D.

SUMMARY

Osteogenesis imperfecta is an inherited disease of the conjunctive tissue, which determines constitutional bone fragility to children and young adults. The clinical evolution describes multiple fractures (on a pathologic bone), easily made after minor trauma which consolidates slowly, as well as important deformations of long bones. It is a rare but potentially severe disease which does not have a cure but only a secondary and tertiary prophylaxis (of complications and its consequences, including genetic advice). Generally, treatment is orthopedic and rehabilitation. Biphosphonates like pamidronate (AREDIA) has lately been imposed as drug treatment for the prevention of fractures and the decrease of joint deformations.

THE POTENTIAL ROLE OF LIPOPEROXIDATION IN THE PATHOGENESIS OF PSORIASIS

Ionela Andrei, byologist

SUMMARY

This article demonstrates the implication of lipoperoxidation processes in the genesis and evolution of psoriasis.

The intervention of oxidative stress in the course of inflammatory reaction had was demonstrated by us through perturbation of oxidants/antioxidants balance. So, malondialdehyde level in the higher blood of the patients with active psoriasis has been significantly compared to the control group and the capacity of releasing free radicals in psoriasis is perturbated.

USING THE INCOMPLETE SENTENCE BLANK TEST IN AERONAUTICAL FIELD DESCRIPTIVE STATISTICS - (II)

Doina Trandafir psychologist, Violeta Ionescu PhD, psychologist, Iuliana Tudor assistant

SUMMARY

Personality may be evaluated by using questionnaire and projective tests which allow a higher degree of freedom related to subject's answers (like Rorsarch test and tree drawing test).

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.

We used a number of 23 sentence beginnings to be completed. 3680 items were analyzed corresponding to 160 evaluated subjects. We made groups of similar responses (finishing categories). For each of them, descriptive statistics were calculated. We found that there are typical finishing (those who were used more often) and uncommon finishing. All these will be analyze lately.

Key words: personality psychological evaluation, incomplete sentence blank test, pilot psychological selection.

SEMINAR "CRITICAL INCIDENT STRESS MANAGEMENT WITH SPECIAL EMPHASIS ON TERRORIST EVENTS AND NATURAL DISASTERS"

Violeta Ionescu, psychologist, Ph.D., Doina Trandafir, psychologist