

3rd ISIC

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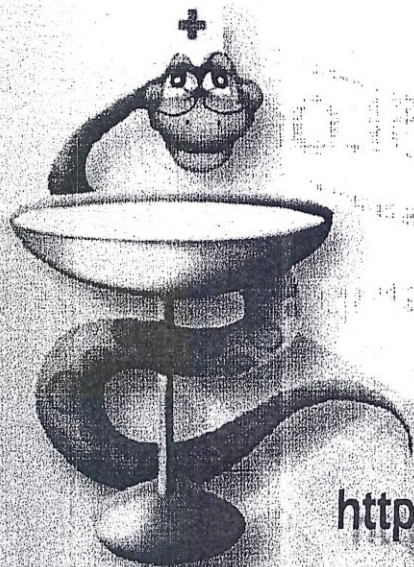
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ABSTRACT BOOK

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Materials and methods: The work carried out on 108 rats of Wistar line with weight of 180-200 g. The model of inflammation consists of acute carrageenan aseptic peritonite, induced by intraperitoneal injection of 5 mg of λ -carrageenan ("Sigma", USA) in 1 ml of isotonic solution of NaCl. Morphofunctional state of thymus was investigated in dynamics of inflammation, from 3rd hour up to 10th day, on paraffine sections of 5-6 mcm with help of hematoxiline and eosin stain. The volumes of brain and cortex substances and their relations have been determined. CTOP was injected subcutaneously in dose of 1 mcg 15 min before inducing inflammation.

Results: In comparison with intact animals, in thymus under acute inflammation proliferative processes in cortex substance were some increased with follicule formation, which were saved until 5th day inclusively. On 10th day hyperplasia had diffused character and its expression was reduced and was similar to that on 3rd day. In all terms of observation the signs of accidental transformation of different phases (from I till IV) were marked as the appearance of adequate reaction of thymus on antigenic action. Under the influence of selective blocator of μ - opioid receptors CTOP in thymus of experimental animals without inflammation an activation of proliferative processes with follicular hyperplasia of lymphoid component was noticed. Accidental transformation of I-III phases was developed at the same time with remarkable prevalence of the III phase. During inflammation on the background of CTOP action in cortical substance of thymus intensive proliferative processes of diffused character were noticed in combination with accidental transformation of I-III phases, which was preserved till the end of experiment. In 1st day proliferative processes were more expressed with lymphoid follicules formation after which they were some weakened. In all series of observation the signs of accidental transformation of different phases (I-III) were noticed, and beginning from 12th hour the III phase prevailed.

Conclusion: Through μ -receptors opioid peptides limit production and migration of T-lymphocytes from thymus in acute inflammation.

Shafgat Parvaneh, Tkachenko E.

UKRAINIAN MEDICAL STOMATOLOGICAL ACADEMY

CONTRIBUTION TO THE ASYMMETRY PHENOMENON STUDY UNDER
PHYSIOLOGICAL AND PATHOLOGICAL CONDITIONS

Higher State Educational Institution of Ukraine "Ukrainian Medical
Stomatological Academy", Poltava, Ukraine

Introduction. Nowadays there are more and more data about asymmetry phenomenon under physiological and pathological conditions. But mostly brain hemispheres asymmetry has been described in a scientific literature though as it is known from the beginning of the last century, asymmetry represents also a feature of subcortex all parts as well as all human organs and systems and realizes its expression at all levels of alive matter organization beginning from the molecular one

and ending with the population-species one. It is important that not only the theoreticians but the clinicians as well deal with this phenomenon. Asymmetry degree defines health and pathological courses prognosis: the bigger is the symmetry degree the worse is the diseases prognosis. Sinistrality can be described as the asymmetry expression at the population-species level. It is non-hidden that the sinisters amount is getting bigger and bigger from year to year all over the world and they have peculiarities of physiological and pathological processes in their organisms. Also it is clear at a present time that the sinisters population is also unequal: one can say about real, hidden and unreal sinisters.

This work aim was to describe shortly the Ukrainian Medical Stomatological Academy contribution to the asymmetry phenomenon study under physiological and pathological conditions.

Main tasks: some rheological and hemostatic blood indexes peculiarities study at the Normal Physiology Chair; microbial number asymmetry assessment at Microbiology, Virology and Immunology Chair; maxillary-facial phlegmons and mandibular angular fractures distributions in the dexters, sinisters (real, hidden and unreal) and ambidexters.

Materials and methods. Blood asymmetry was estimated in 10 students-sinisters and 10 students-dexters in the blood from right and left hands indexes. We estimated hemoglobin level, velocity sedimentation rate, erythrocytes amount, hemolysis maximum time, viscosity for rheology assessment; recalcification time, thrombin time and plasma euglobulins clot lysis time for erythrocytic hemostasis assessment. Microbial number asymmetry was studied by colony-forming units number in a gingival liquid in 10 sinisters 19-23 years by age. 167 people (42- with mandibles fractures and 125 – with maxillary-facial area phlegmonous inflammation) represented the object of the work performed by Normal Physiology Chair in a co-authority with the Chair of a Children's Surgical Dentistry and Surgical Dentistry Propeudetics with the Head and Neck Reconstructive Surgery taking into account the patients individual interhemispherical profile assessed by classic tests.

Results. Rheological and hemostatical indexes demonstrated distinct asymmetry: they were dominant in the dexters on the right and on the sinisters on the left. Moreover, the indexes studied were dominant on the left in the real sinisters (with the parents among the close relatives), hidden sinisters (using their left hand at left hand damage or right hemisphere trauma) had the reactions mixed type (some indexes were dominant on the right while the others – on the left), unreal sinisters (born by dexters or using their left hand at right hand damage or the left hemisphere trauma). Microbial number asymmetry had the same regularities in the students dependently on their leading extremity. Left-sided phlegmons and fractures were observed in the real sinisters, right-sided ones – in the real dexters and unreal sinisters while two-sided fractures and phlegmons location on the middle line could testify to the hidden sinistrality or ambidextrism.

Conclusions. The work performed underline the excessive time that the sinisters possess their physiological and pathological peculiarities in part on blood rheological and hemocoagulating features, microbial number with the differentiating right, mixed and left reaction types on these indexes as well as on pathological processes (phlegmons and fractures) in maxillary-facial area.

Sokol O., Sokol R., Sokol E.

ADAPTIVE POTENTIAL OF THE CARDIOVASCULAR SYSTEM OF STUDENTS WITH DIFFERENT LEVELS OF HYPODYNAMIA

Kharkiv National Medical University, Kharkiv, Ukraine

Introduction. The problem of preserving the health of students is the subject of psychologists and doctors discussing. Research scientists' proves that modern education in the university thoroughly make worse the health of young people, reduces endurance, drains reserve and defensive capabilities of the organism. Education in high school begins in the period of social and psychological adjustment of young people and is accompanied by substantial information and analytical, emotional exertion. It is well known that health is increasingly determined by the peculiarities of mode of life, the most important component of which is motor activity.

The aim of our work was to examine indicators of psychosomatic health and functional status of cardiovascular system of students with different levels of motor activity.

Materials and methods. The 36 medical students aged 18 - 21 years were studied and divided into two groups, depending up on the level of motor activity. In group 1 (21 persons) the total amount of exercise did not exceed 3 hours per week, in group 2 (15 persons) - 6-9 hours per week. The problem of our research was to study adaptation of students' cardiovascular system with different level of hypodynamia during physical exertion. Active orthostatic tests were used to research autonomic regulation of cardiovascular system. Established that 56,4% students of group 2 and 35,7% students of group 1 have harmonious physical development. The 43,6% of students with low motor activity have disharmonious physical development and deficient of body weight. Among the representatives of the 2 group of young men with disharmonious physical development amounted to 28,5%.

Results. As the result of heart rate (HR) comparing it was found that students of group 2 have the most adequately respond to orthostatic test, they have shown acceleration of HR(heart rate) ($86,5 \pm 1,7$) and stress index (SI) ($184,5 \pm 26,8$). Students of group 1 during physical exertion orthostatic test have shown HR acceleration ($97,5 \pm 2,4$), and stress index (SI) ($380,5 \pm 79,2$), indicating that increased consumption of the cardiovascular system.

Conclusions. Analysis of the vegetative status showed that in group 1 have large numbers of young men from the dominant mechanism for adrenergic regulation