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ANALYSIS OF THE ESTIMATION OF EFFICIENCY AND SAFETY OF HYPNOTIC DRUGS IN ELDERLY PATIENTS

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INTRODUCTION. Sleep, currently estimated is perceived as cyclically recurring periods of restoration of essential body functions that are required in the phase of strong human existence. The problems associated with changes in the nature and structure of sleep, are marked according to different authors in 10-45% of all adults in the form of chronic insomnia, and periodically throughout the life occurring in 90-95% of people.

OWN RESEARCH. Given the widespread use of hypnotics drugs to normalize sleep and the prevalence in the target group of elderly patients we have studied the spectrum of pharmacological safety of this group of drugs in geriatric patients.

The objectives of the study were:

1. Determine the range of the most popular drugs with sedative and hypnotic action, used for the purpose of normalization of sleep.
2. Identify the spectrum of somatic pathology, most often those entailing sleep disorders.
3. Determine the range of efficacy and safety of these groups.

MATERIALS AND METHODS. For achieving the result of this study we have selected two groups of elderly patients. With regards to these problems patients were assigned to various types of sleeping pills. Evaluation of the efficacy and safety of taking these drugs evaluated in accordance with the questionnaire, which was developed by us specifically for this study. In addition, the estimated general clinical parameters, specific for this or that disease was observed.

THE RESULTS. Group of patients studied, various sleep disorders noted for 10 to 25 years, but the medication was used only for the last 5-10 years.

It should be noted that the overwhelming majority of patients (13 patients) did not consider the problem of sleep too significant, suggesting that these changes are inevitable at their age. Near 67% of patients had insufficient attention of physicians to this pathology.

Almost all patients were transferred as short-term use, and exchange of treatment with these agents were relatively well. There were no significant health problems with the patients. Side effect of the two patients (13%) was dry mouth.

AN OUTSTANDING ANATOMIST N. I. PIROGOV

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N. I. Pirogov was born on 13 of November 1810 and died on 23 of November 1881. He was one of the outstanding physician-surgeon and anatomist. He proposed many new types of surgical operations. N. I. Pirogov was corresponding Member of the Division of Physical – Mathematical Sciences since 05.12.1848. He in particular was responsible for the creation of topographic anatomy. His work “Surgical anatomy of vascular trunk and fascia” brought him worldwide fame. He introduced the technique of ice-anatomy, a method based on examination of successive sections of frozen cadavers. Pirogov’s “Complete course of applied anatomy” and “The atlas of topographical anatomy in section through frozen cadavers” (1859) are based on this method. These were the first manuals of topographical anatomy. His general outlook was that of a natural scientific materialist, emphasized its immense importance for surgery. At the same time he showed that surgery in turn influenced anatomy and together with I.V. Buyalsky he initiated the applied trend in anatomy. Pirogov’s approach was based on the idea of the unity of the organism and its environment as well as the unity of form and function. Pirogov stressed the importance of function and pioneered the functional trend in anatomy, which was later developed by P. F. Lesgaft and other anatomists. Pirogov’s application of anatomy to surgery gave him a reputation that exceeded that of many

celebrated European surgeons. It was Pirogov who was called in to remove the bullet from the famous Italian revolutionary Garibaldi. Pirogov's creative work formed an epoch in the development of medicine and anatomy. N. I. Pirogov organized the Anatomical Institute in the Medico-Surgical Academy and invited W. L. Gruber, the Prague anatomist, to work with him. After Pirogov's death his body was embalmed by Vychodsev, and sixty years later re-embalmed.

CHRONOPHARMACOLOGICAL PECULIARITIES OF ANTIOXIDANTS ACTION IN TOXIC LIVER DAMAGE

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Treatment of toxic liver damage is one of the actual problems of hepatology. Chlorine-organic compounds have the important place between xenobiotics causing pathological liver changes of chemical etiology. Carbone tetrachloride (CCl₄) is among them. This substance is widely used in different industries and characterized by well-known danger to humans. We have previously demonstrated the significantly high efficacy of antioxidants in toxic influence of CCl₄.

An aim of this study was the investigation of chronopharmacological peculiarities of vitamin E and sodium selenite in toxic liver damage caused by CCl₄.

It was found, that hepatotoxicity of CCl₄ is manifested in maximal degree during spring and summer. In these seasons, lipid peroxidation and low thiol-disulfide ratio are more expressive than in autumn and winter. It is necessary to notice, that the maximal increase of lipid peroxidation level under CCl₄ influence during spring and summer and minimal one during autumn and winter corresponds with maximal and minimal activity of aminotransferases. Efficacy of sodium selenite in treatment of CCl₄-induced liver damage is higher during autumn and winter. Vice versa, hepatoprotective effect of vitamin E is higher during spring and summer. Sodium selenite prevents hepatotoxicity of CCl₄ in autumn-winter season. Combination of sodium selenite with vitamin E exhibits more expressive effect, than separate agents. This combination prevents toxic action of CCl₄ in autumn, winter, spring, and in less degree – in summer. It is due to higher toxicity of poison in summer period.

Obviously, unequal efficacy of vitamin E and sodium selenite in different seasons is result of seasonal pharmacokinetic peculiarities of vitamin E, because selenium concentration in blood and internal organs of rats is independent from seasons. Intensity of free-radical processes (which markedly increased in summer) has significant influence upon distribution of vitamin E in organism, including its accumulation in liver in the hot season.

CHANGES OF THE HEART AT HYPOOSMOLAR OVERHYDRATION

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Introduction. Nearly all the major systems of our body depend on water to work properly. Drinking plenty of water throughout the day aids in regulating body temperature, preventing constipation, flushing waste products out of the body, and many other important functions. However, overhydration—or drinking too much water—is also a potentially deadly condition, one that can throw off the balance between water and sodium in our blood. Hyponatremia is an electrolyte disturbance characterized by sodium concentration in the plasma below 135 mmol/L. At lower levels, overhydration (water intoxication), an urgently dangerous condition, may result in this situation. Too little sodium in our body prevents our nerves from communicating properly with our muscle tissue, leading to muscle weakness, as well as spasms and cramps. Hyponatremia also affects our heart muscle, increasing our heart rate.