### 98-а підсумкова наукова конференція професорсько-викладацького персоналу БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ



The problem is in the combination of efficacy and safety, but practical application of neurotropic drugs is particularly important, since the object of pharmacological intervention is the human brain - the most complicated and mysterious structure of the human body. Therefore, relatively wide range of modern neurotropic drugs, including not so many drugs that completely meet the most stringent criteria are used in neurology. This fact should be considered primarily in the development and implementation in practice of new drugs of this type of action.

Among a wide range of modern facilities neurotropic agents in recent years have attracted increasing attention of scientists. The main feature of these means is the impact on intellectual and memory functions and cerebroprotective performance. According to modern concepts, nootropics are substances of neurometabolic type of action, able to activate plastic processes in the CNS, improve energy supply of nerve cells, increase their resistance to negative factors of different etiology and positive impact on higher mental functions.

The unique pharmacological spectrum of nootropic drugs is the exceptional diversity of opportunities and prospects for their use in different areas of medicine. So this largely explains an extremely high interest in them by pharmacologists and clinicians. Pyracetam has been used recently as a "gold standard". Today drugs like pyracetam are up to more than half of the range of the European market nootropics, and their list continues to expand steadily. Such popularity is due primarily to the fact that it is now pyracetam as compared to other drugs in this group has a maximum width of the range of neuroprotective pharmacological activity, thus provided an exceptional variety of clinical applications.

First of all we should discuss membranoprotective effects of pyracetam, which are strengthened in combined medications "Thiocetam". This drug has a strong membrane stabilizing effect on the neurons of the brain. In particular, it normalizes the permeability of phospholipid layer and the ratio of cholesterol/phospholipids. As a result we can observe the increased membrane resistance of neurons to oxidative stress and pathogenic effects of free radicals. Thus, the most important clinical and pharmacological effects of "Thiocetam", as neuroprotective and antioxidant is realized. It is important that, lipid spectrum of neuronal membranes is the basis of pathological processes associated with aging brain (senile dementia, parkinsonism, etc.) A negative impact of free radical reactions is significantly increased as a result of cerebral hypoxia due to various cerebrovascular diseases. However, "Thiocetam" has a direct antioxidant effect, which is based on the activation of enzymes such as superoxidedismutase and catalase that play a key role in natural antioxidant system of the organism. Antihypoxic properties of "Thiocetam" are associated with stimulation of geksozo-phosphate and pentoso-phosphate metabolic pathways that are alternative mechanisms to support energy metabolism. The most important aspect of "Thiocetam" should be a stimulating effect on protein-synthesizing processes, which directly determines the impact of the drug on intellectual and memory functions. We know, for instance, it activates steroid-dependent transcription of genes which are responsible for protein synthesis in neurons. Effects associated with activation of exchanging information between the hemispheres of the brain, and in particular, the development of interneuron connections lead to the formation of long-term memory and learning ability. Finally, it should be noted that the comprehensive and versatile "Thiocetam" has effect on neurotransmitter processes in particular, cholinergic and glutamatergic effects, playing a key role in the intellectual and mental functions.

# Yurtsenyuk O.S. STUDENTS' LEVEL OF PERSONALITY AND SITUATION ANXIETY

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Health is the main value of the human, it describes not only the condition but also the strategy of life. Mental health depends not only on the way of life, the environment and the person's attitude to his or her individual health, medicine and all factors that affect health generally.

Social educational school provides a central role of anxiety in the socialization of the person. Underlying this view it is noticed that neutral stimulation can become emotional and anxious to acquire properties through reinforcement and learning. As a result, easy arising anxiety is very stable with great difficulties in future. It can contribute to the development of both positive and negative qualities, such as aggression or excessive dependence.

It should be noted that the distribution of the state of anxiety (situational anxiety) and property of the individual (personal) is most evident in the works of C. Spielberger and R. Cattell. According to Charles Spielberger, situational anxiety occurs when an individual perceives a stimulus or situation as one that contains the actual or potential elements of danger, threat or harm. Personal anxiety does not appear directly in behavior, but the level can be determined based on how often and intensely alarm condition occurs.

Psychological studies indicate the existence of these kinds of anxiety as mobilizing and demobilizing anxiety. Mobilizing kind of anxiety is manifested in the increased activity of up to aggression; in increased appetite. Demobilizing kind of anxiety is particularly evident in the process of a stable anxiety.

The aim of this work is to study the levels of trait anxiety and situational students anxiety. The study was conducted in 2015-2016. In general 327 university students were examined. There were no significant differences by sex and age composition, place of residence, learning.

The degree of expression of anxious symptoms was studied using the Spielberger-Hanin test. It consists of 20 statements that consist of both state anxiety (anxiety, reactive or situational anxiety) and 20 to determine the expression of anxiety as dispositions, personality characteristics (property anxiety). Scale of personal anxiety and reactive anxiety



of Spielberg is the only method that allows to find differentiate measure anxiety as personality trait and as a state. We used the modification of Y. L. Hanin (1976), which is adapted to the Russian language.

Significant deviations from a moderate level of anxiety require special attention, high susceptibility to anxiety, involves the emergence of anxiety on human situations for its competence. In this case reduce subjective importance of situations and problems is reduced, and the focus to understanding the formation and sense of confidence in success is increased.

The level of trait anxiety and students' situational anxiety determined the use of Spielberger-Hanin test. It was established that the vast majority of students are persons with middle-trait anxiety - 145 persons (44,34%), high levels of trait anxiety was determined in 98 persons (29,97%), low trait anxiety was found in 84 students (25,69%). Male students with middle-trait anxiety – 56,2% was significantly higher as compared to 39,6% of patients with high levels of 4.2% and a low level, unlike women in the group dominated with high levels of anxiety (76,9% vs. 21,2% with an average level of trait anxiety and 1,9% with low trait anxiety). There was a direct correlation between high levels of trait anxiety and women (r = 0,50, p < 0.05). Remarkably, in subgroups with high and middle-trait anxiety absolute values were higher in women than men - 57,73 ± 4,38 to 49,33 ± 3,74 points (p < 0.05) for high level of anxiety, and 37,66 ± 4,15 vs 36,0 ± 3,54 (p < 0.05) in an average.

Analyzing the performance level of situational anxiety it can be noted that a high level of situational anxiety was exposed to 81 students, representing 24,77% of the patients, an average level of situational anxiety found in 194 persons – 59,33%, and 52 young people revealed a low level of situational anxiety – 15,9%.

Considering sexual division of men and women with high levels of situational anxiety there were – 41,6% versus 25,0% respectively. Average level of situational anxiety was detected in 58,4% of men and 75,0% women.

Elevated levels of anxiety may indicate a lack of emotional adjustment to certain social situations, and students with a high level of anxiety manifest their attitude as to be weak. Anxious students usually are not recognized in the group, they often are among the least popular, because they are often diffident, closed, unsociable or, on the contrary, very sociable, annoying or even angry. The result of lack of initiative anxious students is that a peer has a desire to dominate over him, leading to a decrease in emotional background, to avoid communication trends, increased unsafety. Disturbed student fear of others, waiting for the attack, ridicule, insults, contributing to the development of psychological defense reaction in the form of aggression are directed to others. These students are usually single, closed, inactive. It usually affects the success of training and establishing contacts with the environment.

At the same time, such students have a tendency to the personal anxiety and situational anxiety included in a better group. This is due to the fact that they are students who regularly attend classes, seminars and prepare to them, mostly worry about their performance. They are trying to get all the possible points for employment and successfully write all module tests often under stress.

The emergence of anxiety may be associated with both external and internal factors. Under the influence of external conditions anxiety occurs as an emotional reaction to a stressful situation and may be different than intensity and duration. So we can assume that individuals with high trait anxiety level of situational anxiety also increase due to personal experiences of stress response to situations that occur in the lives of students, particularly in education.

#### СЕКЦІЯ 11 АКТУАЛЬНІ ПИТАННЯ ПЕДІАТРІЇ, НЕОНАТОЛОГІЇ, ДИТЯЧОЇ ХІРУРГІЇ ТА ЛОР ХВОРОБ

### Бабінцева А.Г.

# ЛІПОКАЛІН СЕЧІ, АСОЦІЙОВАНИЙ З ЖЕЛАТИНАЗОЮ НЕЙТРОФІЛІВ, ЯК МАРКЕР ГОСТРОГО ПОШКОДЖЕННЯ НИРОК У ДОНОШЕНИХ НОВОНАРОДЖЕНИХ ДІТЕЙ

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Ліпокалін, асоційований з желатиназою нейтрофілів (ліпокалін-2, neutrophil gelatinase-associated lipocalin, NGAL) являє собою один поліпептидний ланцюжок, який складається з 178 амінокислотних залишків та має молекулярну масу 22 кДа. Уперше показник був ідентифікований як компонент специфічних нейтрофільних гранул, у подальшому встановлено, що він експресується багатьма тканинами, у тому числі епітеліальними клітинами проксимальних канальців нирок. За даними сучасної літератури, у відповідь на ренальні пошкодження у людини та лабораторних тварин рівень NGAL різко збільшується у плазмі, нирках та сечі. Екскреція даного білка у сечу зумовлена 1) пошкодженням проксимальних ниркових канальців та порушенням процесів його реабсорбціїї та /або 2) підвишеним синтезом ліпокаліну у клітинах дистальних канальців *де почо.* Особливо висока концентрація у сечі спостерігається при прямій секреції з пошкоджених канальців, що зумовлено швидким та значним підвищенням синтезу мРНК, яка кодує NGAL у лізосомальному компартменті висхідного коліна петлі Генле та збірних трубках.

Метою роботи було встановити діагностичну та прогностичну цінність ліпокаліну сечі, асоційованого з желатиназою нейтрофілів, при гострому пошкодженні нирок (ГПН) у доношених новонароджених дітей з проявами тяжкої перинатальної патології.

Проведено комплексне клініко-параклінічне обстеження 95 критично хворих доношених новонароджених, з яких у 65 дітей спостерігалися порушення функціонального стану нирок (1 група), у 30 дітей було діагностовано ГПН (ІІ група). Групу контролю для порівняння параклінічних показників склали 30