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«Фізична активність і якість

ЖИТТЯ ЛЮДИНИ»

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**Харківський національний медичний університет
Харківський національний педагогічний університет
ім. Г.С. Сковороди
Харківська державна академія фізичної культури**

«Фізична активність і якість ЖИТТЯ ЛЮДИНИ»

**Матеріали науково-практичної конференції студентів та
молодих вчених
(17 березня 2021 року, Харків)**

2021 рік

ПАМ'ЯТІ ОЛЕКСАНДРА ГНАТОВИЧА ХАРЧЕНКА



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Ветеран Другої світової війни, завідувач кафедри фізичного
виховання та здоров'я ХНМУ
в період з 1965–1981 рр.

surveyed have a hyposthenic physique (Kettle Index equals 18 c.u), 10% of students surveyed have a hypersthenic physique (Kettle Index equals 26-27 c.u). The average value of the Ruffier Index was 6.13 ± 2.2 c.u, which corresponds to an almost good result, but not sufficient for athletes. That is, this indicator of performance is insufficient to maintain and maintain the health of student youth. Dynamometer performance was greater on the right, which is quite expected. It is shown that the change in heart rate in the orthostatic test in students is within the normal range: the most frequent decrease is 10 beats per min (12% of cases), the increase of heart rate by 20 beats per min according to the upper limit of the rate of increase in heart rate in orthostatic test is 8%.

Штикер Ангеліна Станіславівна
**ASSESSMENT OF THE FUNCTIONAL STATE OF THE
STUDENTS' ORGANISM IN THE PERIOD OF
EXAMINATION STRESS**

кафедра фізичного виховання та здоров'я
студентка 2 курс, 12 група, ІІ медичного факультета
asshtyker.2m19@knmu.edu.ua

Харківський національний медичний університет
Науковий керівник старший викладач Лапко Світлана
Василівна
sv.lapko@knmu.edu.ua

Introduction.

The period of study at the university at the present stage is a complex and long process, which requires a huge cost of physical effort, emotional stability. This process takes place under the influence of large groups of factors that modify the features of the morphofunctional state of the organism and shape the character of the subsequent course of life. In recent years, researchers have increasingly noted that the population of modern

students is characterized by poor physical health, high levels of anxiety, low levels of social optimism. Stress during the exam is one of the first places among the causes of mental stress in high school and especially high school students. In this regard, it is relevant to develop methods for predicting the level of examination stress, depending on the individual characteristics of students and to find effective methods for optimizing the functional state of the student body during the examination session. [1,2]

The purpose of this work is to investigate the state of the students' regulatory systems during periods of rest and exam stress.

Materials and methods.

The work was performed on the basis of Kharkiv National Medical University. The participants were students of both sexes aged 20 ± 3.5 years. The study was conducted in two stages: the first stage - during the rest period (during the normal educational process during the intersession period), the second stage - directly on the day of the exam. Functional status analysis was performed according to the following physiological parameters: heart rate (HR), systolic and diastolic blood pressure (CAT and DAT). To determine the physical performance of the cardiovascular system, we used a functional test of Ruffier.

Results of the study and their discussion.

The analysis of the obtained data allowed to divide students into three groups:

1st group - with high level of activity of the parasympathetic department of the autonomic nervous system (31% of the sample).

They have marked bradycardia at rest, reduced GARDEN and DAT in the intersession period. Ruffier's sample was average; Group 2 - normotonic (40% of the sample); Group 3 - sympathicotonic patients, with predominance of the tone of the sympathetic division of the ANS (29% of the sample). In the inter-session period, all students were in a state of satisfactory adaptation, they were characterized by a balanced expenditure of adaptation reserves, optimal mode of operation, high adaptive potential. The data of objective physiological indicators of students' body during the exam showed significant changes. Thus, analysis of the vegetative status of the surveyed students showed that during the period of exam stress, the autonomic balance shifts towards the predominance of the sympathetic link of regulation.

Conclusions.

The obtained results showed that students, wagons and normotonics, in the exam noted activation of the tone of the sympathetic nervous system, which depicts the optimum functioning of the systems of regulation, ie satisfactory adaptation of the organism to stress. Students, sympathicotics, who are in a state of functional stress, are on the verge of exhaustion of functional reserves and, as a consequence, are characterized by an unfavorable course in their process of adaptation to the conditions of study at the university.

Timely assessment of the functional status, adaptation potential of the body of students is necessary for the early detection of heterogeneity of a healthy population, its division into risk groups with greater and less susceptibility to diseases and preventive measures in these groups.