

*Materials of Conferences***SOME SHOWINGS OF VARIABILITY OF HEART RATE WITHIN YOUNG BADMINTON PLAYERS**

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In the opinion of many authors (A.V. Polustuev, 2002; A.V. Sherbakov, 2009; S.A. Kosenchuk, 2010; and others.), modern sport badminton is notable for the specific of approach to the train and competitive process, because the result depends on the whole complex of the components: technically tactical training, functional and psychological condition. Very important component of train process is accordance of physical load to the current functional condition. One of the most objective criterions of estimation of sportsmen's current functional condition is showing, which displays the condition of mechanisms of vegetative regulation of cardiac activity.

For examination of sportsmen's functional condition there becomes more and more popular the analysis of variability of heart rate (VHR), which is an integral showing of functional condition of cardiovascular system and organism in whole.

The aim of the research was examination of some showings of variability of heart rate within young badminton players.

The research was carried out at the base of «Specialized Children and Youth School of Olympic Reserve №9», (Krasnodar) and specialized SCYSOR of Krasnodar krai in the city of Korenovsk and Dinskaya village, there were examined 35 badminton male players at the age of 17-21, who was qualified as master of sports. The analysis of variability of heart rate was carried out with the use of hardwarily program complex «BHC-Spector» of «Neurosoft» firm (Russia, Ivanovo).

For the screening estimation the most informative are the showings of cardiointervalography by R.M. Baevski, 1988: Mo – mode, AMo – Amplitude of mode, VS – Variational swing, AQ – Average quadratic declination, IV – index of voltage.

As the results of carried out researches show the examined young badminton players are able to be divided by their vegetative status: with the presence of normotonia – 22, parasympathicotonia – 10, sympathicotonia – 3.

Received facts allow to take into consideration the degree of tension of central mechanisms of regulation of young sportsmen at the process of their adaptation to the changing environment impact.

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PECULIARITIES OF NITROUS OXIDE STRESS-REACTION AND METABOLISM AMONG PERSONS OF YOUTHFUL AGE WITH VARIOUS LEVELS OF NORMAL DIASTOLIC ARTERIAL PRESSURE

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An increase in arterial pressure (AP) is the leading cause of death among the population of the world, strong and independent risk factor of heart-vascular diseases, and its role exceeds the contribution of smoking, hyperglycemia, dislipidemy, and obesity. This risk has two thresholds: it grows along with AP! Under physical or mental strain, in terms of stress, systolic pressure alters in larger scale than diastolic, but the latter is paid little attention to.

The research objective is to estimate the relation character between normal diastolic arterial pressure with the level of stress-activity and biochemical markers (NO) among young people.

Methods and materials. The research has been carried out upon almost healthy students of 17-21 years old of the first and the second year of medical and paediatric faculties of medical academy. All tests were carried out in laboratory conditions at morning hours (8,00 to 12 a.m.) with a regulated handwritten consent of students.

To estimate stress-reactivity (SR) we used six different methods:

- 1) color test of Lusher (L.N. Sobchick, 1990);
- 2) questioning of J. Taylor to reveal the anxiety level (A.B. Leonova, V.I. Medvedev, 1981);
- 3) evaluation of «individual minute» (Y.O. Alyanchikova, A.G. Smirnov, 1997);
- 4) iridoscopic definition of the number of iris nervous rings (E.S. Velhover and others, 1989);
- 5) functional probe «Mathematic calculation» (V.I. Kiselev and others, 1989);
- 6) automatic analysis of heart rhythm with usage of apparatus-program complex «Chronocard 2.2» to evaluate the index of regulatory systems' tension (IRST) (R.M. Bayevskiy, 1079).

All SR parameters were estimated via ranging into high, average, and low (3, 2, and 1 point correspondingly), sum SR was calculated.

To receive an express-evaluation of physical healthiness we used a method, developed under the supervision of professor G.L. Apanasenko (1988). The degree of extra-introversion and neurotism was defined via the question list of G. Aizenk (1992).