Analysis of the adaptive potential of the circulatory system and possible risks of cardiovascular pathology in the high school students with coronary behavior type A

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According to clinical and experimental studies type A behavior pattern (TABP) is a risk factor for the development of coronary heart disease, atherosclerosis and other cardiovascular pathologies. The data available to date on TABP are based on clinical observations of patients in the older age group (30-60 years). In this study, the daily monitoring of cardic and hemodynamic parameters was conducted, the features of the mechanisms of blood circulation regulation and its adaptive potential in students of the medical university aged 20-22 (n=144) with different types of behavior were studied. It was found that during the training sessions and during night sleep in students with TABP, the mean values of blood pressure, heart rate were maintained at a higher level compared to students with behavior of the type AB and B. Performing an orthostatic test and Martine test in students with TABP led to a pronounced activation of sympathetic adrenal mechanisms and the formation of less adaptive reactions of the cardiovascular system. In some cases, the pathological type of response to functional loads was determined. Students with TABP had a lower cortisol level in the morning. This fact may indicate a possible violation of the circadian rhythm of the development of this adaptive hormone. It is concluded that students with severe TABP are at risk for developing cardiovascular diseases and need an effective system for the prevention of this pathology.

Biography
Kucherenko K N is a student of the Medical Faculty of the Medical University "Reaviz", Samara, Russia. He directs the work of the scientific society of students, performs scientific research in the clinical centers of the same university. His field of scientific interests is related to cardiology.

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