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THE INFLUENCE OF A FOOTBALL TRAINING LOADINGS ON THE MORPHOLOGY OF INTERNAL HEART STRUCTURES WITH MINOR ANOMALIES OF DEVELOPMENT

The study was performed as a part of research works “Medical maintenance of sporting, recreational and restorative training” (state registration number 0111U001374) and “Medical electronic passport of citizen of Ukraine” (state registration number 0108U001039).

ABSTRACT. Background. Approximately 90% of sudden fatal events in sports are associated with cardiac diseases. The role of minor anomalies of heart development in the formation of cardiovascular risk of sudden cardiac death at sportsmen is not established. These malformations represent from 3 to 13% in general structure of sudden death in sports. The statistical data concerning frequency of occurrence of minor anomalies of heart development at sportsmen also differs. **Objective.** The purpose of the research was to improve the training process by medical support of football players; to determine the abundance and features of structural and hemodynamic changes in the heart with minor anomalies of development progressing in the course of long-term trainings. **Methods.** Transthoracic echocardiographic inspection on device "Sonomed-400" micro convex probe with frequency of 2,5 MHz was used. The tissue Doppler imaging helped us to evaluate the blood flow. Investigation was performed in M-, B-modes, basic cardiologic parameters were measured; valves condition was estimated with fixation of a hemodynamic streams. **Results.** In the current work sizes of heart morphological structures of sportsmen-football players depending on a sex, age and the training experience, and also presence of minor anomalies of heart are presented. The factors leading to a decrease of adaptation possibilities at football players with dysplasia of heart and reorganization of heart morphological structures of sportsmen-football players are analyzed. **Conclusion.** Delay of adaptation reorganization of heart to physical activities at football players with minor anomalies of heart development after 12 years of sports experience has been noted. At football players of male sex with abnormally located chords in a left ventricle cavity the indicators of myocardium weight and end-diastolic volume were significantly low, than at football players with other dysplastic changes in the heart.

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