Indicators of tissue enzymes in cardiomyopathies in children

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Background: The study of the role of tissue enzymes in cardiovascular diseases is of great diagnostic importance, since they reflect damage to membrane receptors for molecular signals, metabolic disturbances.

Objectives: The objective of the paper is to study the level of tissue enzymes in children with cardiomyopathy.

Materials & Methods: The study involved 104 children with cardiomyopathy, who were hospitalized to Cardiorheumatology Department, RSSPMCP Pediatrics in Tashkent and RDMMC in Nukus. The average age of children was 8.9±0.6. Children were divided into 2 groups: 1 group: 49 children (47.1%), living in Tashkent; Group 2: 55 children (52.9%) living in Nukus. The levels of ALT, AST, CK, LDH, and cardiospecific enzyme KFK-MB were determined.

Results: The results of indices of tissue and cardiospecific enzymes indicate that the average values of LDH, CK and CPK-MB were significantly increased in comparison with the norm irrespective of the region of children’s residence. It should be noted that in children living in the Republic of Karakalpakstan these changes were more pronounced and significantly higher than in the children of Tashkent. The values of the remaining enzymes (AST and ALT) were within normal limits. We conducted an analysis of tissue and cardiospecific enzymes depending on the form of the disease, which indicated the presence of similar changes in these indicators, as well as depending on the place of residence of children. However, it should be noted that in children with DCMP the tissue enzymes LDH, CK, and CPK-MB were significantly higher than those of the comparison group. In both forms of CMP, the level of ALT and AST enzymes differed insignificantly and corresponded to the mean values of the norm.

Conclusion: In children with CMS, similar changes in the level of tissue and cardiospecific LDH, CKK and KFK-MB enzymes are observed, depending on the region of residence and the form of the disease, which is associated with the degree of myocardial dysfunction and is manifested by an increase in these parameters.

Biography
Khadjieva Z U is a Master’s student of TPMI in Pediatrics Department. She has entered the Magistracy in 2015.

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