

## **LEVELS OF TROPONIN T, C AND I IN FAMILIAL AND SPORADIC FORMS OF DILATED AND HYPERTROPHIC CARDIOMYOPATHIES**

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**INTRODUCTION:** The results of recent trials indicate that 30% to 50% of patients with dilated cardiomyopathy (DCM) have a family history of the disease. The aim of the present work was to measure the levels of cardiac troponins in the peripheral blood of patients with familial or sporadic forms of cardiomyopathies and viral myocarditis (VMC) and to reveal their relationship with the above-mentioned diseases, the prevalence of heart failure, degree of dilatation and prognosis of the condition.

**MATERIALS AND METHODS:** One hundred six patients were investigated, 40 of whom (19 families) had DCM and 20 of whom (7 families) had HCM (the familial form). Sporadic forms of DCM and HCM were seen in 11 and 4 patients, respectively. VMC was reported in 31 patients. Male-to-female ratio was 75:14. The control group comprised 14 healthy volunteers.

**RESULTS:** Our data show that in familial and sporadic forms of cardiomyopathies and in myocarditis, the 3 subcomponents of troponin do not differ statistically, although their levels determine the course of the disease.

**CONCLUSION:** In patients with DCM, an increase in the degree of heart failure is associated with a drop in troponin T/I fraction; which creates conditions favorable for remodeling. Within the same functional class of heart failure, troponin T levels are higher in DCM and HCM; while in cardiomyopathy, the familial form is associated with a more significant rise in troponin I levels than troponin T. Our clinical data indicate that there is a statistically evident difference in the levels of the three fractions of troponin, which correlates with the severity of the disease course and the level of myocardial (contraction/relaxation) damage.

**Key words:** Troponin Cardiomyopathy Myocarditis