

Multiplicity of Dysmetabolic Components in Males is Associated with Cardiac Troponin T Concentrations. Potential Clues to Chronic Myocardial Stress in the Male Metabolic Syndrome

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Background:

There are multiple lines of evidence to suggest that chronic myocardial stress and increased cardiovascular risk is associated with the enhanced release of cardiac troponin T in the general population. However there is a paucity of data regarding the relation of cardiac troponin to the metabolic syndrome (MetS).

Methods and results:

We determined the prevalence of measurable high sensitivity cardiac Troponin T (hs-cTnT) with a new fifth generation assay and evaluated its association to the presence of the male metabolic syndrome (MetS) components, in general population of patients undergoing health survey in the Tel Aviv inflammation medical center survey (TAMCIS). The metabolic syndrome was defined according to the harmonized criteria. A total of 1641 men with no known cardiovascular disease were recruited, MetS was diagnosed in 330 (20.1%) patients. The levels of hs-cTnT were higher in patients with the MetS ($p < 0.001$). The number of MetS components was associated with the level of hs-cTnT ($p < 0.001$ for trend).

Conclusions:

The male MetS is associated with higher levels of hs-cTnT in the general population, with each component increasing hs-cTnT value. Thus, we suggest that male patients with elevated hs-cTnT and MetS might be at increased cardiovascular risk.

Key Words: metabolic syndrome _ troponin T_ Cardiovascular risk

