

Serum H-FABP Levels in Patients with Overt Hypothyroidism

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Objectives:

Overt hypothyroidism affects mostly women with an increased prevalence in individuals by age. Hypothyroidism is associated with accelerated atherosclerotic cardiovascular diseases, possibly caused by the higher incidence of hyperlipidemia, insulin resistance, hypertension which all are associated to hypothyroidism. Heart-type fatty acid binding protein (H-FABP) is specific for cardiomyocytes and a sensitive marker of myocardial injury. The purpose of this study is examining the effect of hypothyroidism on H-FABP levels and carotid artery intima-media thickness (CIMT) level.

Methods:

We measured serum H-FABP levels in 33 patients with overt hypothyroidism and age, gender, and body mass index-matched 39 control subjects. All participants underwent high-resolution B-mode ultrasonography in order to measure CIMT.

Results:

Serum levels of H-FABP were not found significantly different in the patient group in comparison with the controls (1515,87 2143 pg/ml vs 953 416 pg/ml, $p=0.15$, respectively). CIMT was significantly higher in the patient group than in the control group (0,53 0,08 mm vs 0,48 0,05 mm, $p<0.05$). However, The HOMA-IR and fasting insulin levels did not differ between the two groups ($p>0.05$).

Conclusions:

Based on the results of this study, H-FABP seems not a useful marker while detecting preclinical atherosclerosis in patients with overt hypothyroidism but CIMT might be useful to detect early atherosclerosis.

