

The Relationship between FABP4 Serum Levels with Epicardial Fat Thickness in Patients with Acute Myocardial Infarction (AMI) and Comparison with Patients with Stable Angina

Abstract

Background: Cardiovascular diseases are one of the leading causes of death in most countries of the world. many factors such as blood pressure, hyperlipidemia, smoking and family history have been implicated in the development of coronary artery disease.

Aim: the serum FABP-4 level increase in chronic inflammatory disease and Experimental evidence shows that FABP-4 plays an important role in lipid metabolism and increased atherosclerotic plaque formation. Therefore, in the present study, we intend to evaluate the levels of FABP-4 in patients with coronary artery disease with EFT in patients with AMI and SAP.

Materials and Methods: This study is a case-control study and the sample size is 90 males. Three groups of 30 normal individuals, 30 patients with stable angina and 30 patients with AMI were selected from patients who referred to Imam Khomeini Hospital in Ardabil with the main complaint of chest pain. A checklist was completed for all subjects, including demographic and cardiovascular risk factors. Angiographic and echocardiographic informations were obtained for each patient and entered in a separate checklist. The severity of coronary artery stenosis is measured by the Gensini index. blood samples were taken from all participants in the 6cc study and serum FABP-4 levels were measured by ELISA method with existing commercial kits

Results: The results of the present study showed that there was a close relationship between epicardial fat thickness and serum FABP-4 concentration in patients with AMI and SAP.

Conclusion: We showed in the present study for the first time that elevated FABP4 levels were associated with epicardial fat thickness based on echocardiographic findings. results of the current study were elevated serum levels of FABP4 in patients with AMI and SAP compared to the control group, a positive significant association between FABP4 with Gensini score, CK-MB, Troponin T, WHR, WBC and FBS, and finally a negative significant relationship with LVEF (%).the results of the current study suggest that EFT, EAT, and FABP4 are associated with the process of atherosclerosis in patients with CAD.

Keywords: Acute myocardial infarction, Type 4 fatty acid binding protein, Stable angina, Echocardiography