

Evaluation of Fetuin-A Protein and Some Inflammatory Biomarkers in Patients with Coronary Artery Disease

Abstract

Background and Objectives: Coronary artery disease (CAD) is a state of insufficient supply of oxygenated blood to a part of myocardium. The most common cause of myocardial ischemia is atherosclerosis. Inflammation plays an important role in atherosclerosis and hence CAD. The principle inflammatory markers that believed to have a key position in the pathogenesis of CAD include fetuin-A protein, high sensitive C-reactive protein (hs-CRP), tumor necrosis factor -alpha (TNF- α), and soluble intracellular adhesion molecule-one (sICAM-1).

The aim of study was carried out to evaluate fetuin-A protein and some inflammatory biomarkers in patients with coronary artery disease.

Subjects and Methods:

Ninety subjects above forty year old; (45) patients with acute coronary syndrome (ACS); were divided in three groups: Unstable angina (UA), non-ST- elevation myocardial infarction (NSTEMI), and ST-elevation myocardial infarction (STEMI), all selected from Coronary Care Unit (CCU), and (45) apparently healthy age and sex matched subjects as controls. Five milliliters (5ml) of venous blood sample were drawn from each patient and healthy persons (controls), centrifuged to obtain serum, to be used for measuring the following variables: Fetuin-A protein, hs-CRP, TNF- α , sICAM-1.

Results:

Fetuin-A protein was significantly lower, while hs-CRP, TNF- α , and sICAM

-1 were higher in patients. A low Fetuin-A protein level was inversely associated with increasing age. A high TNF- α level was associated with increased BMI.

Conclusions:

Lower serum Fetuin-A level, and higher serum levels of hs-CRP, TNF- α , and sICAM-1 are associated with ACS. The future may be promising in rising of anew tests that use for evaluation of patients with suspected ACS.