

High Sensitivity C-Reactive Protein: A Novel and Promising Marker of Degenerative Aortic Valve Disease

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Abstract:

Objective: To determine whether a difference exists in the levels of high sensitivity C-reactive protein (Hs-CRP) in patients with and without degenerative aortic valve disease. **Patients and Methods:** Our study was cross-sectional study consisted of 85 patients who had undergone echocardiographic examination from August 2006 to April 2007 at Fayoum University hospital. Information on demographic variables, coronary risk factors, and medications was obtained. The values of Hs-CRP, total cholesterol, and erythrocyte sedimentation rate were included. **Results:** Of the 85 study subjects, 30 patients had aortic sclerosis, 25 patients had aortic stenosis, and 30 were controls. The mean Hs-CRP level in the control group was significantly lower (2.18 ± 0.467 mg/L) compared with the levels in the groups with aortic sclerosis (6.3 ± 1.321 mg/L) and aortic stenosis (7.1 ± 1.743 mg/L) ($p = .0001$). No statistically significant difference was found between the patients in the aortic sclerosis and aortic stenosis groups ($p = .804$). Among the patients with aortic stenosis, no significant correlation existed between Hs-CRP levels and aortic stenosis severity ($p = .830$). **Conclusions:** The Hs-CRP seems to have a significant association with degenerative aortic valve disease during its early stage. The study findings did not have sufficient evidence to suggest the use of Hs-CRP as a marker of progression of calcific aortic stenosis. The Hs-CRP may have a role in identifying patients in the early stages of CAVD and in whom medical treatment may be beneficial to halt the progression to irreversible aortic valvular calcification and stenosis.

Key Words: C-Reactive protein – Aorta – Degenerative.

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