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High-sensitivity C-reactive protein in Sri Lankan males with coronary artery disease

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Evidence suggests that inflammation plays a key role in the pathogenesis of atherosclerosis. High sensitivity C-reactive protein (hs-CRP) is a sensitive marker of inflammation. This study was carried out to investigate whether hs-CRP is associated with coronary artery disease. Three hundred and nine males; (103 with ST- elevated myocardial infarction (MI) - STEMI, 103 with established coronary artery disease - CAD, 103 controls without having clinically manifested coronary artery disease) were studied. Serum high-sensitivity-C-reactive protein levels were determined.

Mean hs-CRP levels tended to be higher in patients with established CAD compared to the control (3.37 ± 1.62 VS. 1.70 ± 0.60 mg/L, p = 0.001). Baseline mean hs-CRP levels in STEMI patients were significantly different from the controls (3.70 ± 0.65 VS. 1.70 ± 0.60 mg/L, p = 0.001). In patients with acute STEMI before reperfusion therapy, hs-CRP levels were not significantly different to those in patients with established CAD (3.37 ± 1.62 VS. 3.70 ± 0.65 mg/L, p = 0.058).

Mean serum hs-CRP levels were high both in patients with established CAD and STEMI patients compared to controls, however baseline (on-admission) hs-CRP levels in patients with MI was not elevated compared to patients with established CAD. Therefore, an elevated level of hs-CRP may be associated with coronary artery disease, but the baseline hs-CRP level may fail to differentiate patients with established CAD from patients with acute coronary syndrome.

Keywords: Coronary artery disease, inflammation, high- sensitivity- C-reactive protein

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