

## **Testosterone and high-sensitive C-reactive protein in coronary artery disease patients awaiting coronary artery bypass graft**

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### **Abstract**

Natural androgens inhibit atherosclerosis in men. This study aimed to examine whether testosterone and high-sensitive C-reactive protein differ between patients with coronary artery disease and those without coronary artery disease and to determine the association with the severity of coronary artery disease. Two hundred and six male subjects were recruited. Serum total testosterone and high-sensitive C-reactive protein were estimated. Severity of coronary artery disease was assessed by angiographic scores. Total testosterone level in patients was significantly different from controls (11.4 ± 2.7 vs. 18.1 ± 7.2 nM  $P = 0.001$ ) and high-sensitive protein level in cases was significantly higher compared to controls (3.37 ± 1.62 mg l<sup>-1</sup> vs. 1.71 ± 0.60 mg l<sup>-1</sup>,  $P = 0.001$ ). Testosterone levels were not significantly different with vessel ( $P = 0.592$ ), Leaman ( $P = 0.694$ ) and Gensini ( $P = 0.329$ ) score groups, but high-sensitive C-reactive protein showed significant positive correlation among the respective groups ( $P = 0.005$ ,  $P = 0.028$ ,  $P = 0.015$ ). Testosterone was lower, while high-sensitive C-reactive protein was higher in patients compared to controls. Testosterone showed no correlation with the severity of atherosclerosis, but high-sensitive C-reactive protein showed significant positive correlation.

**Keywords:** Coronary artery disease, high-sensitive C-reactive protein, total testosterone