



## Relationship between serum adiponectin and osteoprotegerin levels and coronary heart disease severity

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**ABSTRACT.** This study aimed to explore serum adiponectin and osteoprotegerin levels in patients with coronary heart disease (CHD) and their correlation with inflammatory and ischemia factors. From September 2010 to August 2010, 347 CHD patients were enrolled for a retrospective analysis. Serum lipoprotein phospholipase A2 (Lp-PLA2), hypersensitive C-reactive protein (hs-CRP), ischemia modified albumin (IMA), and adiponectin and osteoprotegerin levels were detected and analyzed. Serum adiponectin levels (ng/mL, CV was 4.3% at 250 ng/mL) were found to be negatively correlated with Lp-PLA2 ( $r = -0.958$ ,  $P = 0.014$ ) and hs-CRP ( $r = -0.958$ ,  $P = 0.015$ ) and positively correlated with IMA ( $r = 0.962$ ,  $P = 0.025$ ). Serum osteoprotegerin levels were positively correlated with Lp-PLA2 ( $r = 0.933$ ,  $P = 0.027$ ) and hs-CRP ( $r = 0.932$ ,  $P = 0.022$ ) and negatively correlated with IMA ( $r = -0.924$ ,  $P = 0.017$ ). In addition, serum adiponectin levels negatively correlated with osteoprotegerin levels. In conclusion, serum adiponectin level was negatively correlated with CHD progression, whereas serum

osteoprotegerin level was positively correlated with CHD progression. Combined detection of adiponectin and osteoprotegerin levels may be of potential value in the clinical determination of CHD severity.

**Key words:** Adiponectin; Osteoprotegerin; Coronary heart disease; Inflammatory factor; Ischemia factor