



## Association of Body Mass Index and High-sensitivity C-reactive Protein: The Qazvin Metabolic Diseases Study

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High-sensitivity C-reactive protein (hs-CRP), has been identified as a risk factor for both coronary artery disease (CAD) morbidity and secondary mortality. Obesity is associated with increased risk of hypertension, diabetes, CAD etc. The aim of this study was to investigate the association of body mass index (BMI) and hs-CRP in Qazvin, Iran. This cross-sectional study was conducted in 1071 people aged 20–78 years old, randomly selected using multistage random sampling method between September 2010 and April 2011 in Qazvin, Iran. BMI and hs-CRP level were measured for each participant. Obesity was defined as  $BMI \geq 30$ . Overweight was defined as  $25 < BMI \leq 29.9$ . A logistic regression analysis was used to examine the association of BMI and hs-CRP. Of 1171, 40.9% and 17.0% were overweight and obese, respectively. Mean hs-CRP level was  $2.04 \pm 4.22$ . 26.5% and 19.4% of the study subjects had moderate risk and high risk hs-CRP, respectively. Hs-CRP level in obese subjects was significantly higher than in overweight and normal weight subjects ( $P < 0.001$ ). Results demonstrated hs-CRP to be associated with BMI among adults in Qazvin. More longitudinal studies are needed to evaluate and confirm the association between hs-CRP and BMI.

**Keywords:** High-sensitivity C-reactive protein; Body mass index; Diabetes; Coronary artery disease