

Association between high sensitivity C-reactive protein and body compositions among community dwelling healthy adults; a cross-sectional study among South East Asians

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High sensitivity C-reactive protein (Hs-CRP) is a predictor of future vascular events. Although studies have shown that Hs-CRP is linked with body fat content, data among South East Asians are inconsistent and sparse. Objective of this study was to determine the association between Hs-CRP and body composition indices among community dwelling healthy adults. Seventy (women=9) healthy adults, free of medications and excessive use of alcohol (more than one unit of alcohol per day) and smoking (more than one cigarette per day) were recruited as community controls of an ongoing study. Hs-CRP was measured by an ELISA method on fasting state and they underwent Dual-energy X-ray absorptiometry (DEXA) to measure body compositions (total body fat mass (TBFM), truncal fat mass (TRFM), total body lean mass (TBLM), total body bone mineral content (TBBMC), total body bone mineral density (TBBMD)). Mean (SD) age of the group was 47(9) years with a mean (SD) body mass index of 23.4(3.6) kgm⁻². Median (IQR) Hs-CRP was 0.8 (0.4-1.9) mg/L. A significant positive correlation (Spearman rho) was observed between Hs-CRP and TBFM (r=0.52) TRFM (r=0.54) and fat percentage (r=0.55) (p<0.001 for all). No significant correlations were observed between Hs-CRP and TBLM or TBBMC/TBBMD. Among healthy adults' Hs-CRP is linked with both total and truncal fat masses and not with lean or bone masses. This information supports the view that chronic inflammation is linked with body fat content than other body compartments.

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