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Association between Dietary Macronutrient Intake and High-Sensitivity C-Reactive Protein Levels among Obese Women in Kuantan, Malaysia

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Abstract
Elevated high-sensitivity C-reactive protein (hs-CRP) levels may be associated with an increased risk of cardiovascular disease (CVD). In general, an individual's dietary intake may influence the hs-CRP level. However, evidence on the influence of dietary macronutrient intake on hs-CRP levels among obese Malaysian women remains fragmented. Therefore, this study aims to investigate the association between the hs-CRP level and dietary macronutrient intake of obese adults living in Kuantan. The assessment of 24-hour dietary recall and venous hs-CRP levels were investigated in 67 women with a body mass index of 27.5 to 39.9 kg/m2. The findings revealed that obese women living in Kuantan had elevated hs-CRP levels (median = 7.95 mg/L, IQR = 7.90) and a significant negative correlation between the hs-CRP level and total dietary fiber intake (r = 0.205, p =.014). In conclusion, this study suggests that certain macronutrients, particularly dietary fiber, seem to be associated with elevated hs-CRP in obese women. Hence, this information could help assess and manage low-grade chronic inflammation and underlying obesity-related conditions.

Author Keywords
C-reactive protein; cardiovascular risk; macronutrient intake; obesity

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