



ABSTRACT

Correlation Between Serum High Sensitivity C-Reactive Protein with Dietary Intake of Indonesian Lactating Mothers

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Background and Objectives: Chronic low-grade inflammation has emerged as important pathophysiology of non-communicable diseases, which can cause negative effects to mother and baby. Dietary intake has been known as important factor to affect inflammation, which can be measured by high-sensitivity C-reactive protein (hs-CRP). This study aimed to examine the correlation between serum hs-CRP with dietary intake in lactating mothers.

Methods: A cross-sectional study was conducted by consecutively enrolling 71 lactating mothers, 3-6 months post-partum, age 20-35 years old, visiting Grogol Petamburan and Cilincing community health center between February and April 2019. Dietary assessment was conducted using semi-quantitative food frequency questionnaire. Anthropometric measurements included were pre-pregnancy weight, post-partum weight, and body height. Serum hs-CRP was measured by immunoturbidimetry method. Spearman correlation was used, with $p < 0.05$ considered significant.

Results: Correlation was found between serum hs-CRP and energy ($r = 0.372$, $p = 0.001$), carbohydrate ($r = 0.295$, $p = 0.013$), and vitamin B6 ($r = -0.285$, $p = 0.016$) intake. We also found that serum hs-CRP was correlated with pre-pregnancy ($r = 0.296$, $p = 0.012$) and post-partum BMI ($r = 0.430$, $p < 0.001$).

Conclusion: Energy, carbohydrate, and vitamin B6 intakes are positively correlated with serum hs-CRP level.

Keywords: C-reactive protein, dietary intake, breastfeeding

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