

# Korelasi antara kadar IL-6 serum dengan indeks massa tubuh pada perempuan hamil trimester I = Correlation between serum interleukin 6 levels and body mass index in pregnant women in first trimester

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## Abstrak

Prevalensi berat badan lebih dan obesitas meningkat pada wanita usia subur. Obesitas pada kehamilan berhubungan dengan komplikasi kehamilan dan persalinan. Pada obesitas terjadi peningkatan respon inflamasi. Interleukin-6 (IL-6) adalah salah satu mediator inflamasi yang dapat digunakan sebagai penanda inflamasi. Pada kehamilan terjadi peningkatan kadar IL-6 serum akibat proses inflamasi. Penelitian ini merupakan penelitian dengan desain potong lintang yang bertujuan untuk mengetahui korelasi antara kadar IL-6 serum dengan indeks massa tubuh (IMT) pada perempuan hamil trimester 1. Penelitian dilakukan di RS Budi Kemuliaan selama bulan Maret 2013 sampai April 2013. Pengambilan subyek dilakukan dengan cara consecutive sampling, didapatkan 47 orang subyek yang dianalisis. Data yang dikumpulkan meliputi data karakteristik usia, tingkat pendidikan, tingkat pendapatan, asupan energi total dengan metode tanya ulang serta proporsi karbohidrat, lemak dan protein. Pengukuran antropometri yaitu IMT untuk menilai status gizi dan pemeriksaan laboratorium kadar IL-6 serum. Hasil penelitian didapatkan rerata usia  $27,3 \pm 3,9$  tahun, asupan energi total 95,7% subyek memiliki asupan kurang dari anjuran angka kecukupan gizi (AKG) Indonesia, 55,3% subyek memiliki berat badan lebih, rerata IMT adalah  $23,8 + 3,7 \text{ kg/m}^2$ . Hasil pengukuran kadar IL-6 serum didapatkan rerata  $1,9 \pm 1,2 \text{ pg/ml}$ . Didapatkan korelasi positif tidak bermakna antara kadar IL-6 serum dengan IMT pada perempuan hamil trimester 1 ( $r=0,28$ ,  $p=0,057$ ).

<hr><i>The prevalence of overweight and obesity increases in the reproductive women. Obesity is related to complication in pregnancy and parturition. Interleukin-6 (IL-6) is one of inflammatory cell that can be used as a marker of inflammation which increases in patient with obesity. Serum IL-6 level had been found increases in pregnancy related to inflammation process. The aim of this cross sectional study was to find the correlation between serum IL-6 level and body mass index (BMI) in first trimester pregnancy. Data collection was conducted during March 2013 to April 2013 on Budi Kemuliaan Hospital, Jakarta. Subjects were obtained using consecutive sampling method. A total of 47 pregnant women in first trimester subjects had met the study criteria. Data were collected through interviews including age, educational status, income status, total energy intake and proportion of carbohidrat, fat, protein. Anthropometry measurements of BMI to assess the nutritional status and laboratory examination i.e blood levels of IL-6. Mean age was  $27,3 \pm 3,9$  years. Intake of total energy showed that 95.7% of the subjects were less than recommended dietary allowances (RDA). Overweight was occurred in 55,3% of the subjects. Mean of BMI was  $23,8 + 3,7 \text{ kg/m}^2$ . Mean of serum IL-6 levels was  $1,9 \pm 1,2 \text{ pg/ml}$ . No significant correlation was found between serum IL-6 levels and body mass index in first trimester pregnancy ( $r=0,28$ ,  $p=0,057$ ).</i>