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Korelasi antara konsentrasi seng serum ibu hamil trimester ketiga dengan konsentrasi seng serum tali pusat = The correlation between maternal serum zinc concentration and cordblood serum zinc concentration / Liliana

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Abstrak

[ABSTRAK
Pada kehamilan dibutuhkan asupan zat gizi yang adekuat untuk menunjang pembelahan sel dan pertumbuhan yang cepat. Seng merupakan kofaktor dari hampir sekitar 200 enzim yang berperan penting dalam embryogenesis. Defisiensi seng berhubungan dengan komplikasi pada ibu selama kehamilan dan persalinan serta gangguan pertumbuhan dan kelainan kongenital pada janin. Konsentrasi seng serum menurun sejak kehamilan trimester pertama hingga ketiga. Penelitian ini merupakan penelitian dengan desain potong lintang yang bertujuan untuk mengetahui korelasi antara konsentrasi seng serum maternal dengan tali pusat pada kehamilan trimester ketiga. Penelitian dilakukan di 10 puskesmas di Jakarta Timur pada bulan Maret 2015 sampai bulan April 2015. Pengambilan subyek dilakukan dengan cara konsekutif dan didapatkan 63 orang subyek yang memenuhi kriteria penelitian. Data dikumpulkan melalui wawancara meliputi data usia, usia kehamilan, paritas, pajanan rokok, pendapatan rumah tangga, pendidikan maternal, serta asupan protein, besi, tembaga dan seng dengan metode Food Frequency Questionnaire (FFQ) semikuantitatif. Pengukuran antropometri untuk menilai status gizi dan pemeriksaan laboratorium yang meliputi konsentrasi seng serum dan tali pusat. Didapatkan rerata usia 27,63 ± 4,96 tahun dan sebagian besar subjek berada dalam kategori pendidikan tinggi dan pendapatan tinggi. Asupan seng menunjukkan 98,4% subjek memiliki asupan seng kurang dari Angka Kecukupan Gizi (AKG) Indonesia. Nilai median konsentrasi seng serum maternal 53,70 (28.18 -67,61) μg/dL dan 82,5% subyek tergolong dalam kategori adekuat. Nilai median konsentrasi seng serum tali pusat adalah sebesar 85,11
(57.54 - 154,88) μg/dL, sedangkan 65,1% subjek tergolong dalam kategori tidak adekuat. Didapatkan rasio di antaranya 0,63 dengan korelasi tidak bermakna antara konsentrasi seng serum maternal dengan tali pusat (r=0,04, p=0,78).
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ABSTRACT
Pregnancy is a period of rapid growth and cell differentiation, when both of the mother and the fetus are very susceptible to alterations in dietary supply, especially of nutrients which are marginal under normal circumstances. Zinc is required for cellular division and differentiation, and is an essential nutrient for normal embryogenesis. Zinc deficiency has been associated with complications of

pregnancy and delivery, as well as growth retardation and congenital abnormalities in the fetus. It has been found that zinc levels keep decreasing during pregnancy from first trimester to third trimester. The aim of this cross sectional study was to find the correlation between serum maternal and cordblood zinc level during third trimester. Data collection was conducted during March 2015 to April 2015 on 10 selected primary health service in East Jakarta. Subjects were obtained using consecutive sampling method. A total of 63 pregnant subjects had met the study criteria. Data were collected through interviews including age, gestation age, parity, tobacco exposure, household income, maternal education, zinc intake, protein intake, iron intake, and copper intake. Anthropometry measurements to assess the nutritional status and laboratory examination i.e blood levels of maternal and cordblood zinc. Mean age was 27.63 ± 4.96 years and majority of the subjects were high-educated and well-income. Intake of zinc showed 98.4% of the subjects were less than recommended dietary allowances (RDA). Median of serum maternal zinc levels was 53.95 (27.97 ? 74.93) μg/dL, while 82.5% the of subjects were categorized as adequate zinc levels. Median of serum cordblood zinc levels was 84.92 (56.95 ? 155.86) μg/dL. No significant correlation was found between serum maternal and cordblood zinc (r=0.04, p=0.78) with the ratio between serum maternal and cordblood zinc was 0.63, Pregnancy is a period of rapid growth and cell differentiation, when both of the
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