

Korelasi antara kadar seng serum dan jumlah bifidobacterium usus pada kehamilan trimester ketiga = Correlation between serum zinc level and gut bifidobacterium numbers in the third trimester of pregnancy

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Abstrak

Latar belakang: Pada trimester ketiga terjadi peningkatan patogen yang dapat disebabkan oleh gangguan kerja imunitas usus akibat defisiensi seng, sehingga menekan pertumbuhan Bifidobacterium. Penelitian ini bertujuan untuk mengetahui korelasi antara kadar seng serum dan jumlah Bifidobacterium usus pada kehamilan trimester ketiga.

Desain: Studi potong lintang pada 52 wanita hamil 32 minggu, berusia 19–44 tahun dan memenuhi kriteria penelitian di 10 Puskesmas Kecamatan Jakarta Timur. Dinilai asupan seng dan besi menggunakan SQ-FFQ. Asupan protein, lemak dan total kalori menggunakan 2x24 hours food recall. Dilakukan pengukuran seng serum dan penghitungan Bifidobacterium usus.

Hasil: Didapatkan asupan seng kurang dengan rerata $8,74 \pm 3,90$ mg/hari. Defisiensi seng didapatkan pada 75% subjek. Jumlah Bifidobacterium usus subjek memiliki median sebesar 7,7 (5,12–9,50) log sel/gram. Kelompok defisiensi seng memiliki nilai median yang lebih rendah. Uji korelasi didapatkan nilai $r=0,04$ dengan $p=0,81$.

Kesimpulan: Tidak ditemukan korelasi antara kadar seng serum dan jumlah Bifidobacterium usus kehamilan trimester ketiga.

Background: Numbers of pathogen were increases in the third trimester of pregnancy that can be caused by impairment of gut immune function due to zinc serum deficiency, thereby suppressing the growth of Bifidobacterium. This study was conducted to investigate the relationship between zinc serum levels and gut Bifidobacterium numbers in the third trimester of pregnancy.

Design: A cross-sectional study recruited 52 pregnant women among 19–44 years old with gestational age 32 weeks and met the study criteria were conducted in 10 Community Health Center at East Jakarta. Dietary intake such as zinc and iron through SQ-FFQ, protein, fat and total calories using 2x24 hours food recall were assessed. Measurement of serum zinc level and quantification of gut Bifidobacterium numbers were generated.

Results: The entire subject had poor zinc intake with mean value $8,74 \pm 3,90$ mg/day. Zinc deficiency was found in 75% subjects. Median number of gut Bifidobacterium was 7,7 (5,12–9,50) log cell/gram and subjects with zinc deficiency had lower median value. Correlation test score $r=0,04$ and $p=0,81$.

Conclusion: There was no correlation between serum zinc levels and gut Bifidobacterium numbers in the third trimester of pregnancy.