HUBUNGAN PERTAMBAHAN BERAT BADAN, KADAR HEMOGLOBIN, TINGKAT ASUPAN ASAM FOLAT DAN SENG IBU HAMIL PADA TRIMESTER II DAN III DENGAN BERAT BAYI LAHIR DI PUSKESMAS NGESREP DAN PANDANARAN SEMARANG

Artikel Penelitian

Disusun sebagai salah satu syarat untuk menyelesaikan studi pada
Program Studi Ilmu Gizi Fakultas Kedokteran
Universitas Diponegoro

Disusun Oleh:

DENY YUDI FITRANTI

G2C003240

PROGRAM STUDI ILMU GIZI FAKULTAS KEDOKTERAN

UNIVERSITAS DIPONEGORO SEMARANG

2007

Associations between maternal weight gain, hemoglobin concentration, and intake level of folic acid and zinc in the second and third trimester pregnant women with infant birth weight in ngesrep and pandanaran public health centre in semarang

Deny Yudi Fitranti[1], Endang Purwaningsih[2]

ABSTRACT

Background: Low birth weight (LBW) is one of causes of neonatal mortality. Determinant factors of LBW are nutritional status and dietary intake during pregnancy. Nutritional status of pregnant women can be seen from maternal weight gain and hemoglobin concentration. Infant nutritional status is influenced by micronutrient deficiency. Folic acid and zinc in pregnant women are essential for fetal growth and development.

Method: A cohort prospective study was conducted on 55 pregnant women in third trimester. Sample were drawn from two Public Health Center in Semarang and were chosen by purposive sampling. Hemoglobin concentration and anthropometric measures were obtained. Data dietary intake were taken through a food record and recall method. Statistic tests were done using Pearson correlation and Multiple Regression Model with α=0,05.

Result: This study showed that prevalence of LBW was 3,8%. The mean of infant birth weight was 3249,1±440,4 gram. The prevalence of anemia in second trimester was 45,3% and decrease in third trimester (11,3%). Most of sample had a high intake level of folic acid (43,4%) and had a low intake level of zinc (71,7%). There were significant correlation between maternal weight gain in second and third trimester with infant birth weight (r=0,69 p=0,00;r=0,66 p=0,00) respectively. There were significant correlation between hemoglobin concentration in third trimester with infant birth weight (r=0,34 ;p=0,01) but hemoglobin concentration in second trimester was not. There were significant correlation between intake level of folic acid and zinc with infant birth weight (r=0,86 p=0,00;r=0,74 p=0,00) respectively. Multivariate analysis showed that maternal weight gain in third trimester, intake level of folic acid and space of birth had significant correlation with infant birth weight (p=0,000).

Conclusion: Maternal weight gain in third trimester, level intake of folic acid and space of birth were found to be predictor of infant birth weight.

Key words: Weight gain, hemoglobin, folic acid, zinc, birth weight

---

[1] Student of Nutritional Science Study Program Medical Faculty Diponegoro University
[2] Lecture of Nutritional Science Study Program Medical Faculty Diponegoro University

Hubungan pertambahan berat badan, kadar hemoglobin, dan tingkat asupan asam folat dan seng ibu hamil pada trimester II dan III dengan berat lahir bayi di puskesmas ngesrep dan pandanaran semarang

Deny Yudi Fitranti[1], Endang Purwaningsih[2]

ABSTRAK

Latar Belakang: Salah satu penyebab tingginya angka kematian neonatal adalah berat bayi lahir rendah (BBLR). Faktor-faktor yang mempengaruhi BBLR adalah status gizi dan asupan makanan ibu selama hamil. Status gizi ibu dapat dilihat dari pertambahan berat badan dan kadar hemoglobin selama kehamilan. Status gizi bayi dipengaruhi oleh defisiensi mikronutrien. Asam folat dan seng sangat penting bagi ibu hamil untuk pertumbuhan dan perkembangan janin.

Metode: Rancangan penelitian adalah *cohort prospective* dengan sampel 55 ibu hamil trimester III. Sampel diambil dari dua puskesmas di Semarang yang dipilih dengan metode *purposive sampling*. Pada sampel dilakukan pengukuran kadar hemoglobin dan penimbangan berat badan ibu hamil. Metode *food record* dan *recall* dilakukan untuk memperoleh data asupan makan ibu. Data dianalisis menggunakan uji korelasi pearson dan regresi linier ganda dengan α=0,05.

Hasil: Pada penelitian ini didapatkan prevalensi BBLR sebesar 3,8% dengan rerata berat lahir bayi sebesar 3249,1±440,4 gram. Prevalensi anemia pada trimester II sebesar 45,3% dan menurun setelah trimester III (11,3%). Sebagian besar sampel mempunyai tingkat asupan folat yang tergolong lebih (43,4%) sedangkan tingkat asupan seng tergolong rendah (71,7%). Variabel yang secara bermakna berhubungan dengan berat bayi lahir adalah pertambahan berat badan trimester II (r=0,69;p=0,00), pertambahan berat badan trimester III (r=0,66;p=0,00), kadar hemoglobin trimester III (r=0,34;p=0,01), tingkat asupan asam folat (r=0,86;p=0,00) dan seng (r=0,74;p=0,00) tetapi tidak untuk kadar hemoglobin trimester II. Setelah diuji multivariat didapatkan bahwa pertambahan berat badan trimester III, tingkat asupan asam folat dan jarak kelahiran berhubungan bermakna dengan berat bayi lahir.

Simpulan: Pertambahan berat badan trimester III, tingkat asupan asam folat dan jarak kelahiran adalah prediktor dari berat bayi lahir.

Kata Kunci: pertambahan berat badan, kadar hemoglobin, asam folat, seng, berat bayi lahir.

---

[1] Mahasiswa Program Studi Ilmu Gizi Fakultas Kedokteran Universitas Diponegoro

[2] Staf Pengajar Program Studi Ilmu Gizi Fakultas Kedokteran Universitas Diponegoro.