

Hubungan Asupan Protein dan Zat Besi dengan Kadar Serum Ferritin Ibu Hamil di Kota Semarang

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ABSTRAK

Latar Belakang: Anemia dan defisiensi zat besi pada ibu hamil dapat berdampak pada kesehatan ibu dan janin, komplikasi saat kehamilan dan kelahiran, serta perkembangan dan pertumbuhan anak. Serum ferritin dapat menjadi indikator untuk mendeteksi defisiensi zat besi lebih dini.

Tujuan: Mengetahui hubungan antara asupan protein dan zat besi dengan kadar serum ferritin ibu hamil di Kota Semarang.

Metode: Penelitian ini memperoleh data dari Penelitian 1000 HPK FK Undip tahun 2017-2019. Penelitian observasional analitik dengan pendekatan potong lintang dilakukan terhadap 108 subjek ibu hamil berusia 19-34 tahun dari 14 puskesmas di Kota Semarang. Asupan protein, zat besi, dan variabel perancu asupan vitamin C diperoleh dari metode wawancara menggunakan formulir *Food Recall 2x24* jam. Serum ferritin diperoleh dari pengambilan darah intravena dan dianalisis dengan metode ELISA. Uji normalitas data menggunakan Kolmogorov-Smirnov dan uji hubungan menggunakan uji korelasi Rank Spearman.

Hasil: Ada hubungan negatif asupan protein dengan kadar serum ferritin ($r = -0,256$; $p = 0,007$), sedangkan asupan zat besi ($r = -0,125$; $p = 0,199$) dan asupan vitamin C ($r = -0,131$; $p = 0,175$) tidak berhubungan.

Kesimpulan: Ada hubungan negatif antara asupan protein dengan kadar serum ferritin sedangkan tidak ada hubungan antara asupan zat besi dengan kadar serum ferritin.

Kata Kunci: Asupan protein, zat besi, serum ferritin

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Relation Between Protein and Iron Intake with Serum Ferritin Levels in Pregnant Women in Semarang City

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ABSTRACT

Background: Anemia and iron deficiency in pregnant women can have an impact on the health of the mother and fetus, complications during pregnancy and birth, as well as the development and growth of the child. Serum ferritin can be an indicator to detect iron deficiency early.

Objectives: This study aimed to examine the association between protein and iron intake and serum ferritin levels of pregnant women in Semarang City.

Methods: This research obtained data from the 1000 First Days of Life Research by Medical Faculty of Diponegoro University in 2017-2019. Analytical observational research with a cross-sectional approach was conducted on 108 pregnant women aged 19-34 years from 14 community health centers in Semarang City. Data of protein, iron intake and confounding variables for vitamin C intake were collected from the interview method using the 2x24 hour Food Recall form. Serum ferritin was obtained from intravenous blood sampling and analyzed using the ELISA method. The data normality test used Kolmogorov-Smirnov and the relation test used the Spearman Rank correlation test.

Results: There was a negative relationship between protein intake and serum ferritin levels ($r = -0.256$; $p = 0.007$), while iron intake ($r = -0.125$; $p = 0.199$) and vitamin C intake ($r = -0.131$; $p = 0.175$) were not related.

Conclusion: Protein intake was negatively related while iron intake was not related to serum ferritin levels.

Keywords: Protein, iron intake, serum ferritin

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