Status besi remaja usia 15-17 tahun dengan obesitas = Iron status on adolescence 15-17 years old with obesity

Rhyno Febriyanto, author

Abstrak

Latar belakang: Remaja merupakan kelompok risiko tinggi defisiensi besi. Adanya obesitas pada remaja meningkatkan risiko defisiensi besi disebabkan perbedaan pola asupan dan inflamasi kronis derajat rendah.

Tujuan: Mengetahui status besi remaja usia 15 -17 tahun dengan obesitas.

Desain penelitian: Penelitian potong lintang pada remaja usia 15 ? 17 tahun di dua SMU Jakarta Pusat pada bulan September ? November 2015. Subjek dibagi 2 kelompok berdasar indeks massa tubuh (IMT). Subjek obes bila IMT≥P95 dan non-obes bila IMT ≥P5 - <P85. Pada subjek dilakukan penilaian status besi yaitu hemoglobin, MCV, besi serum, feritin, saturasi transferin, dan TIBC serta analisis diet.

Hasil penelitian: Diperoleh 100 subyek yang memenuhi kriteria inklusi dan eksklusi. Berdasarkan indeks massa tubuh (IMT) diperoleh 52 subjek obes dan 48 subjek non-obes. Tidak terdapat perbedaan bermakna secara statistik proporsi defisiensi besi dan anemia defisiensi besi pada kelompok obes dan non-obes (9,6% vs 16,7%; p=0,295). Tidak terdapat perbedaan bermakna asupan besi total kelompok obes dan non-obes (8 (2,6 ? 95,9) mg/hari vs 10 (1,8 ? 83,4) mg/hari; p=0,188). Persentase asupan besi heme kelompok obes lebih tinggi dibandingkan kelompok non-obes (31 (0,0 ? 95,6)% vs 20 (15,2 ? 100,0)%; p=0,029).

Simpulan: Tidak terdapat perbedaan bermakna secara statistik proporsi defisiensi besi dan anemia defisiensi besi remaja usia 15 ? 17 tahun dengan obes dan non-obes. Tidak terdapat perbedaan rerata asupan besi remaja usia 15 - 17 tahun dengan obes dan non obes.
<hr>
Background. Adolescent period is high risk group of iron deficiency. Obesity can increase the risk of iron deficiency. It was caused by low iron intake and low grade chronic inflammation.

Objective. To assess whether obese adolescents, who often have poor dietary habits, are at increased risk of iron deficiency.

Methods: Cross-sectional study on adolescence 15 to 17 years old in Senior High School in Central Jakarta between September to November 2015. Subject was divided into 2 groups based on body mas index (BMI). Obese group if BMI ≥P95 and non-obese group if BMI ≥P5 - <P85. Recorded measures of iron status included hemoglobin, MCV, serum iron, ferritin, transferin saturation, and TIBC. Dietary iron intake also measured by food recall.

Results. There are 100 subjects that meet the inclusion and exclusion criteria. There was no significance

difference proportion of iron deficiency and iron deficiency anemia between obese and non-obese group (9,6% vs 16,7%; p=0,295). Both groups did not significantly differ in total iron intake (8 (2,6 ? 95,9) mg/day vs 10 (1,8 ? 83,4) mg/ day; p=0,188). Obese groups have higher heme iron intake than non-obese groups (31 (0,0 ? 95,6)% vs 20 (15,2 ? 100,0)%; p=0,029).

Conclusion. Proportions of iron deficiency and iron deficiency anemia were same in both adolescence group. There was no difference in iron intake in obese and non-obese adolescence.