

Hubungan Total Asupan BCAA (*Branched-Chain Amino Acids*) Dengan Kadar Kolesterol Total Pada Individu Obesitas di Kota Semarang

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ABSTRAK

Latar Belakang: Obesitas berkaitan erat dengan hiperkolesterolemia, dimana individu obesitas memiliki risiko lebih tinggi mengalami peningkatan kadar kolesterol dibandingkan individu dengan berat badan normal. Selain itu, obesitas juga berhubungan dengan disregulasi metabolisme BCAA yang dapat menyebabkan sindrom metabolik.

Tujuan: Mengetahui hubungan antara total asupan BCAA dengan kadar kolesterol total pada individu obesitas.

Metode: Penelitian ini merupakan studi kuantitatif observasional dengan desain *cross-sectional* menggunakan data sekunder D-Nutrimed Study. Sampel terdiri dari 100 individu obesitas di Kota Semarang. Analisis dilakukan menggunakan uji korelasi Pearson dan regresi linear berganda untuk mengontrol variabel perancu usia dan jenis kelamin.

Hasil: Hasil menunjukkan tidak terdapat hubungan signifikan antara total asupan BCAA dan kadar kolesterol total ($p = 0,991$). Setelah dikontrol, hubungan tetap tidak signifikan ($p = 0,949$; Adjusted $R^2 = -0,016$). Usia dan jenis kelamin diduga turut memengaruhi variabilitas kadar kolesterol.

Kesimpulan: Total Asupan BCAA tidak berhubungan signifikan dengan kolesterol total pada individu obesitas; faktor lain seperti usia, jenis kelamin, dan metabolisme diduga lebih berperan dalam variabilitas kolesterol.

Kata Kunci: BCAA, Kolesterol, Obesitas

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Association of BCAA (Branched-Chain Amino Acids) Intake with Total Cholesterol Levels in Obese Individuals in Semarang City

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ABSTRACT

Background: Obesity is closely associated with hypercholesterolemia, with obese individuals having a higher risk of elevated cholesterol levels than normal weight individuals. In addition, obesity is also associated with dysregulation of BCAA metabolism, which may lead to metabolic syndrome.

Objective: To determine the association between total BCAA intake and total cholesterol levels in obese individuals.

Method: This study is a quantitative observational study with a cross-sectional design using secondary data from the D-Nutrimed Study. The sample consisted of 100 obese individuals in Semarang City. Analysis was performed using Pearson's correlation test and multiple linear regression to control for the confounding variables of age and gender.

Results: The results showed no significant relationship between total BCAA intake and total cholesterol levels ($p = 0.991$). After adjustment, the relationship remained insignificant ($p = 0.949$; Adjusted $R^2 = -0.016$). Age and gender were thought to influence cholesterol level variability.

Conclusion: Total BCAA intake is not significantly associated with total cholesterol in obese individuals; other factors such as age, gender, and metabolism are suspected to play a more significant role in cholesterol variability.

Keywords: BCAA, Cholesterol, Obesity

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