

## Hubungan Asupan Energi dan Protein dengan Perubahan Berat Badan dan Kekuatan Genggam Tangan Pasien Kanker Rawat Inap di RSUP Dr. Sardjito

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### INTISARI

**Latar Belakang:** Pasien kanker sangat rentan mengalami malnutrisi. Malnutrisi pada pasien kanker dapat disebabkan oleh penyakitnya, faktor psikologis, atau efek samping pengobatan yang mempengaruhi asupan makanan. Pasien kanker yang mengalami malnutrisi dapat menyebabkan buruknya *outcome* klinis.

**Tujuan:** Mengetahui hubungan asupan energi dan protein dengan perubahan berat badan dan kekuatan genggam tangan pasien kanker rawat inap di RSUP Dr. Sardjito.

**Metode:** Penelitian ini merupakan penelitian observasional kohort prospektif. Penelitian melibatkan 26 pasien kanker yang dirawat inap di RSUP Dr. Sardjito selama minimal 3 hari. Subjek dibagi menjadi kelompok terpapar yang asupan energi 24 jam pertama <80% kebutuhan, dan kelompok tidak terpapar  $\geq 80\%$  kebutuhan. Data berat badan dan kekuatan genggam tangan diukur di awal dan akhir perawatan. Data asupan energi dan protein diamati selama perawatan. Analisis hubungan asupan energi dan protein dengan perubahan berat badan dan kekuatan genggam tangan menggunakan *chi-square* ( $p < 0,05$ ) dan risiko relatif menggunakan analisis uji regresi logistik.

**Hasil:** Terdapat hubungan signifikan antara asupan energi dengan perubahan berat badan ( $p < 0,05$ ). Subjek dengan asupan energi kurang berisiko 4 kali mengalami penurunan berat badan, dan 2,9 kali pada asupan protein. Subjek dengan asupan energi kurang berisiko 1,5 kali lebih besar mengalami penurunan kekuatan genggam tangan, dan 1,8 kali pada asupan protein.

**Kesimpulan:** Terdapat hubungan signifikan antara asupan energi dengan perubahan berat badan, namun tidak pada asupan protein pada pasien kanker rawat inap di RSUP Dr. Sardjito. Tidak terdapat hubungan signifikan antara asupan energi dan protein dengan perubahan kekuatan genggam tangan pada pasien kanker rawat inap di RSUP Dr. Sardjito.

**Kata Kunci:** asupan energi, asupan protein, berat badan, kekuatan genggam tangan, pasien kanker

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## Relationship between Energy and Protein Intake with Changes in Body Weight and Handgrip Strength of Cancer Patients Hospitalized in RSUP Dr. Sardjito

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### ABSTRACT

**Background:** Cancer patients are very vulnerable to malnutrition. Malnutrition in cancer patients can be caused by illness, psychological factors, or treatment side effects that affect food intake. Cancer patients who are malnourished can cause poor clinical outcomes.

**Objective:** To determine the relationship between energy and protein intake with changes in body weight and handgrip strength of cancer patients hospitalized in Dr. RSUP Sardjito.

**Methods:** This study was an observational with prospective cohort study. The study involved 26 cancer patients who were admitted to Dr. RSUP Sardjito for a minimum of 3 days. Subjects were divided into exposed groups whose first 24 hour energy intake <80% of needs, and groups not exposed to ≥80% of needs. Data on body weight and handgrip strength are measured at admission and discharge. Data on energy and protein intake were observed during treatment. Analysis of the relationship between energy and protein intake with changes in body weight dan handgrip strength using chi-square ( $p < 0.05$ ) and relative risk using logistic regression test analysis.

**Results:** There was a significant relationship between energy intake and changes in body weight ( $p < 0.05$ ). Subjects with less energy intake were 4 times more likely to experience decrease in weight, and 2.9 times on protein intake. Subjects with less energy intake were 1.5 times more likely to experience a decrease in handgrip strength, and 1.8 times on protein intake.

**Conclusion:** There was a significant relationship between energy intake and changes in body weight, but not on protein intake in cancer patients hospitalized at Dr. RSUP Sardjito. There was no significant relationship between energy and protein intake with changes in handgrip strength in cancer patients hospitalized at Dr. RSUP Sardjito.

**Keywords:** energy intake, protein intake, body weight, handgrip strength, cancer patients

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