

**PENGARUH PEMBERIAN DIET MODIFIKASI TERHADAP
STATUS GIZI PASIEN KANKER DENGAN KEMORADIASI**

*MODIFIED DIET EFFECTS ON NUTRITIONAL STATUS OF
CHEMORADIATION CANCER PATIENTS*



Tesis
Untuk memenuhi sebagian persyaratan
mencapai derajat S2

Magister Ilmu Gizi

Sri Purwaningsih
2203011140023

FAKULTAS KEDOKTERAN
UNIVERSITAS DIPONEGORO
SEMARANG

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ABSTRAK

Latar Belakang: Pasien kanker stadium lanjut pada umumnya mengalami kurang gizi, karena terjadinya hipermetabolisme dan pengaruh terapi kemoradiasi. Diet modifikasi dengan porsi kecil dan mengandung sumber peptida, BCAA, omega3 dan MCT diharapkan bisa mencegah penurunan berat badan, mengurangi anoreksia dan anti inflamasi. Tujuan penelitian adalah menganalisis pengaruh pemberian diet modifikasi terhadap kenaikan status gizi pasien kanker.

Metode Penelitian: Rancangan penelitian adalah *Randomised Control Trial* dengan *pre post-test control group design*. Populasi: pasien rawat inap kanker dengan kemoradiasi di RSUP Dr. Kariadi bulan Juni-September 2013. Subjek sebanyak 66 orang dipilih secara *consecutive sampling* selanjutnya dibagi 2 kelompok secara random. Kelompok perlakuan diberi diet modifikasi, kelompok kontrol diberi diet standar rumah sakit. Sebelum dan setelah intervensi 21 hari diukur data antropometri (berat badan, indeks massa tubuh, lingkaran lengan atas dan *triceps skinfold*) dan biokimia (kadar albumin, hemoglobin, jumlah lekosit dan *total lymphocyte count*) serta asupan makanan. Analisis statistik dengan *Paired Samples T Test*, *Mann Whitney Test*, *Independent Samples T Test* dan *Wilcoxon Rank Test*. Analisis multivariat dilakukan dengan *ancova* pada tingkat kemaknaan $p < 0,05$.

Hasil: Tidak ada perbedaan tingkat kecukupan energi (87,7% dan 85,6%) serta protein (96,3% dan 92,6%) antara kelompok perlakuan dan kontrol. Diet modifikasi meningkatkan berat badan ($p=0,001$), indeks massa tubuh ($p=0,001$), kadar albumin ($p=0,001$), kadar hemoglobin ($p=0,007$), jumlah lekosit ($p=0,042$) dan *total lymphocyte count* ($p=0,001$) pada kelompok perlakuan. Pada kelompok kontrol terjadi penurunan berat badan ($p=0,002$), indeks massa Tubuh ($p=0,002$), kadar albumin ($p=0,001$), kadar hemoglobin ($p=0,001$), jumlah lekosit ($p=0,001$) dan *total lymphocyte count* ($p=0,001$) setelah intervensi. Diet modifikasi meningkatkan berat badan ($p=0,024$), indeks massa tubuh ($p=0,028$), kadar albumin ($p=0,007$), kadar hemoglobin ($p=0,002$) dan *total lymphocyte count* ($p=0,001$) setelah dikontrol dengan asupan protein.

Kesimpulan: Pemberian diet modifikasi selama 21 hari meningkatkan berat badan, indeks massa tubuh, kadar albumin, kadar hemoglobin dan *total lymphocyte count* pada pasien rawat inap kanker dengan kemoradiasi.

Kata Kunci: Kanker, Status Gizi, Diet Modifikasi, Antropometri, Biokimia.

ABSTRACT

Background: Malnourished are generally prevalent on advanced cancer patients due to hypermetabolism and chemoradiation therapy. Dietary modification by small portions and peptide containing substance i.e. BCAA, omega3 and MCT are expected to prevent weight loss, anorexia and reduce inflammation. This study aimed to investigate the effect of dietary modification on nutritional status of cancer patients at Kariadi Hospital.

Methods: The study design was Randomised Control Trial with pre post test control group design. Population, were all hospitalized cancer patients chemoradiation therapy in Kariadi Hospital at June to September 2013. Subjects were 66 patients, selected through a consecutive sampling method and then divided into 2 groups. The treatment group received modification diet, while the control group received standard hospital diet. At baseline and at 21th of intervention anthropometric (weight, body mass index, arm circumference and triceps skinfold above), biochemical (albumin, hemoglobin, and total number of leukocytes lymphocyte count) and food intake data was collected. Statistical analysis was done by Paired Samples T test, Mann Whitney, Independent Samples T Test and Wilcoxon Rank. Multivariate analysis was done by ancova, with a significant level of <0.05.

Results: There was no different in energy (87.7% and 85.6%) protein (96.3% and 92.6%) adequacy rates in treatment and control groups. Modifications diet increased body weight (p=0.001), body mass index (p=0.001), albumin (p=0.001), hemoglobin levels (p=0.007), leukocytes count (p=0.042) and total lymphocyte count (p=0.001) in the treatment group. In the control group body weight (p=0.002), body mass index (p=0.002), albumin (p=0.001), hemoglobin levels (p=0.001), leukocytes count (p=0.001) and total lymphocyte count (p=0.001) were decreased after intervention. Modification diet increased body weight (p=0.024), body mass index (p=0.028), albumin (p=0.007), hemoglobin levels (p=0.002) and total lymphocyte count (p=0.001) after controlled protein intake.

Conclusion: Dietary modification improves body weight, body mass index, albumin, hemoglobin levels and total lymphocyte count cancer on inpatients with chemoradiation therapy.

Keywords: Cancer, Nutritional Status, Diet Modification, Anthropometry, Biochemistry.