

**HUBUNGAN INDEKS MASSA TUBUH (IMT) DAN LINGKAR LENGAN ATAS
(LILA) DENGAN *CANCER RELATED FATIGUE* (CRF) PADA PASIEN
KANKER NASOFARING YANG MENJALANI RADIOTERAPI DI RSUP DR
SARDJITO YOGYAKARTA**

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INTISARI

Latar Belakang: Kanker nasofaring merupakan keganasan terbanyak ke-4 di Indonesia. Salah satu terapi bagi pasien nasofaring adalah radioterapi. Selama terapi, status gizi pasien dapat mengalami penurunan karena efek dari pengobatan. Keadaan malnutrisi akan menyebabkan penurunan massa otot sehingga tubuh menjadi lemas dan berujung *fatigue*.

Tujuan: Untuk mengetahui hubungan Indeks Massa Tubuh (IMT) dan Lingkar Lengan Atas (LILA) dengan *Cancer Related Fatigue* (CRF) pada pasien kanker nasofaring yang menjalani radioterapi di RSUP Dr. Sardjito Yogyakarta.

Metode: Penelitian ini merupakan penelitian observasional dengan rancangan *cross sectional*. Subjek dalam penelitian ini adalah pasien kanker nasofaring rawat jalan yang menjalani radioterapi di ICC Tulip RSUP Dr. Sardjito serta telah memenuhi kriteria inklusi yaitu berjumlah 25 orang. CRF diukur menggunakan kuesioner *Brief Fatigue Inventory* (BFI). Data karakteristik subjek dan tinggi badan diperoleh dari rekam medis sedangkan berat badan dan LILA diukur secara langsung. Analisis statistik menggunakan uji korelasi *Pearson* dan *Spearman-rank*.

Hasil: Uji statistik menunjukkan bahwa tidak terdapat hubungan signifikan antara usia ($p = 0,515$), jenis kelamin ($p = 0,666$), pekerjaan ($p = 0,830$), jenis terapi ($p = 0,812$) dan frekuensi terapi ($p = 0,120$) dengan CRF. Namun terdapat korelasi ($r = 0,545$) dan perbedaan rata-rata *fatigue* yang signifikan pada setiap tingkatan stadium ($p = 0,002$). Terdapat hubungan signifikan ($p = 0,000$) dengan arah korelasi negatif antara IMT ($r = -0,697$) dan LILA ($r = -0,705$) dengan CRF yang artinya semakin kecil nilai IMT maupun LILA maka akan semakin besar nilai CRF.

Kesimpulan: IMT dan LILA memiliki hubungan negatif dengan CRF, artinya semakin kecil nilai IMT maupun LILA maka semakin besar nilai CRF. Rata-rata *fatigue* pada setiap tingkatan stadium berbeda secara signifikan.

Kata Kunci: Status Gizi, IMT, LILA, *Fatigue*, BFI, Kanker Nasofaring, Radioterapi

CORRELATION BETWEEN BODY MASS INDEX (BMI) AND MID-UPPER ARM CIRCUMFERENCE (MUAC) WITH *CANCER RELATED FATIGUE* (CRF) IN NASOPHARYNX CANCER PATIENTS UNDERGOING RADIOTHERAPY AT DR SARDJITO HOSPITAL YOGYAKARTA

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ABSTRACT

Background: Nasopharynx cancer is the fourth in range of malignancies in Indonesia and has high morbidity and mortality rate. One of the treatment for nasopharynx patients is radiotherapy. During therapy, nutritional status of cancer patients may decrease due to the therapy effect. Malnutrition will cause a decrease muscle mass so that the body becomes weak and leads to fatigue.

Objective: To determine the relationship between Body Mass Index (BMI) and Mid-Upper Arm Circumference (MUAC) with Cancer Related Fatigue (CRF) in nasopharynx cancer patients undergoing radiotherapy at Dr. Sardjito Yogyakarta.

Method: This research was an observational with cross sectional design. Research subjects are nasopharynx cancer patients who undergone radiotherapy in ICC Tulip RSUP Dr. Sardjito and meet inclusion criteria, with the total of 25 subjects. CRF was measured using questionnaire named *Brief Fatigue Inventory* (BFI). Data on subject characteristics and height were obtained through interviews and medical records meanwhile body weight and MUAC were measured directly. Statistical analyze used *Pearson* and *Spearman-rank* correlation.

Results: Statistic test showed that there were no significant relationship between age ($p = 0,515$), gender ($p = 0,666$), occupation ($p = 0,830$), type of therapy ($p = 0,812$) dan frequency of therapy ($p = 0,120$) with CRF. However, there were correlation ($r = 0,545$) and significant mean differences in every stage ($p = 0,002$). There was a significant relationship ($p = 0,000$) with negative correlation direction between BMI ($r = - 0,697$) and MUAC ($r = -0,705$) with CRF which means that the lower the IMT or MUAC value is, the higher the CRF value will be.

Coclusion: BMI and MUAC had negative correlation with CRF, which means that the lower the IMT or MUAC value is, the higher the CRF value will be. Fatigue means in every stage of disease was significantly difference.

Keywords: Nutritional Status, BMI, MUAC, Fatigue, BFI, Nasopharynx Cancer, Radiotherapy