improved diagnostic and treatment capabilities. Understanding HD epidemiology is crucial for effective resource allocation and improved clinical outcomes.

**Keywords:** Epidemiology, Hodgkin's disease, Hodgkin's lymphoma, Oncohematology.

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## ASSOCIATION BETWEEN BODY COMPOSITION AND SURVIVAL IN LOCALLY ADVANCED HEAD AND NECK CANCER TREATED WITH RADIOTHERAPY

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**Introduction/Justification:** Malnutrition is a frequent condition in patients with head and neck cancer (HNC) due to the location of the tumor, treatment, and difficulty in food intake. Body composition is recognized as a prognostic factor in cancer patients, independently of nutritional status. Low muscularity (LM) is related to decreased survival in patients with HNC, however, the adipose tissue (AT) impacts in prognosis is unclear. **Objectives:** This study evaluates the association between body composition parameters and survival in patients with locally advanced HNC. **Materials and Methods:** A retrospective study was conducted on patients diagnosed with locally advanced HNC who received radiotherapy as the first-line treatment at the University of Campinas Hospital between January 2010 and December 2018. The total adipose tissue (TAT) area and the skeletal muscle area were measured by analyzing computed tomography (CT) images at the level of the third cervical vertebra (C3) using the SliceOMatic V. 5.0 software. The muscle cross-sectional area (CSA) at C3 was used to estimate the CSA muscle area at L3, using a specific formula.Cox proportional hazard models were used for survival analysis. Model A was adjusted for age, while model B was adjusted for age, ECOG score, diabetes, hypertension, concomitant chemotherapy, and tumor stage. Model C maintained the variables of model B plus muscularity. The statistical analysis was performed using Stata software version 17.0, and a significance level of 5% was established. The study was approved by the Research Ethics Committee of UNICAMP (CAAE: 42743120.5.0000.5404). **Results:** Our sample included 132 patients that comprised mostly males (87.9%) aged between 55 and 70 years (60.6%) and considered eutrophic by the Body Mass Index (BMI) (52.3%). Patients in the highest tertile of TAT had a lower risk of death than those in the lowest tertile in model A [HR: 0.49 (CI 95%: 0.30–0.79); ptrend = 0.007], model B [HR: 0.56 (CI 95%: 0.32–0.96); ptrend = 0.039], and model C [HR: 0.51 (CI 95%: 0.29–0.89); ptrend = 0.017]. The highest tertile of TAT presented higher caloric intake (p = 0.030) and energy expenditure (p = 0.004). Low muscularity was associated with lower overall survival [HR = 1.77, 95%CI (1.01 - 3.07), p = 0.044)], but not with progression free survival. There was no statistical difference for NLR values between groups (p = 0.47). **Conclusion:** Higher adiposity was a protective factor for overall survival in locally advanced HNC treated with radiotherapy. Low muscularity was associated with reduced overall survival. The assessment of body composition, added to an early nutritional intervention, and the preservation of muscle mass and adipose tissue may play a role in improving the outcomes of locally advanced HNC patients undergoing radiotherapy.

**Keywords:** Adipose tissue, Computed tomography, Malnutrition, Mortality, Muscularity.

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## LOW MUSCULARITY IMPACTS SURVIVAL IN PATIENTS WITH METASTATIC OR RECURRENT HEAD AND NECK CANCER

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**Introduction/Justification:** The prognosis of patients with head and neck cancer (HNC) is determined by factors extrinsic and intrinsic to the patient and the disease, such as age, smoking, alcoholism, HPV infection, tumor staging, and performance status and facts involving low muscularity, which is an independent adverse prognostic factor in some types of cancer, such as HNC. However, the impact of muscularity in the scenario of metastatic or recurrent HNC (mHNC) patients has still been little explored, especially when evaluated at the level of the third

cervical vertebra (C3). **Objectives:** To evaluate the impact of muscularity on the overall survival (OS) of patients with mHNC. **Materials and Methods:** Retrospective and analytical study carried out at the Hospital de Clínicas of the University of Campinas (HC-UNICAMP). Patients diagnosed with mHNC during the period from January 2010 to December 2018 were included. Demographic and clinical data were collected from information in the medical record. The computed tomography images were used to evaluate the area of muscle tissue at the C3 level ($cm^2$), calculated with Software SliceOMatic V.5.0. Muscularity was calculated after converting the muscular cross-sectional area (CSA) at C3 to the CSA at L3. Fisher's exact test was applied to investigate the difference between groups, the Kaplan-Meier method was used to construct survival curves. The Cox Proportional Hazard Model was used to investigate the association of muscularity with OS. Model was adjusted for age (categorical) and ECOG (categorical). This study was approved by the Institutional Review Board (CAAE: 42743120.5.0000.5404). **Results:** The study population consisted of 101 adult and elderly patients of both sexes diagnosed with mHNC, 79 of which were classified as having normal muscularity (NM) and 22 with low muscularity (LM). The LM group had a higher proportion of individuals aged over 70 years and with a body mass index less than 18.5. They also had lower total adipose tissue area (mean; NM = 22,4 $cm^2$; LM = 10,3 $cm^2$; p = 0,019) and total adipose tissue index (mean; NM = 8,3 $cm^2/m^2$; LM = 3,7 $cm^2/m^2$; p = 0,018). The LM group had a significantly worse survival rate (HR = 1.73; 95% CI 1.02-2.92) when compared to the NM group. The median survival was 4.4 months for the LM group and 8.4 months for the NM group. The LM group also had lower adiposity (p = 0.018). **Conclusion:** Low muscularity impacts the mortality of patients with HNCm independent of age and ECOG.

**Keywords:** Body composition, Oncology, Prognosis.

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## 177LU-PSMA IN METASTATIC CASTRATION RESISTANT PROSTATE CANCER: PRELIMINARY ANALYSIS OF A BRAZILIAN MULTICENTRIC STUDY

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**Introduction/Justification:** 177Lu-PSMA can be a promissor therapy in patients with metastatic castration resistant prostate cancer. **Objectives:** Investigate 177Lu-PSMA therapy in Brazilian patients with metastatic castration resistant prostate cancer (mCRPC). **Materials and Methods:** Data for this retrospective multicentric study was collected from 9 Brazilian centers from 6 federative units (SP, PE, CE, RJ, SC and DF) that performed at least two cycles of 177Lu-PSMA therapy in mCRPC. Data with skewed distribution were reported as median (min-max). Primary outcome was overall survival. Secondary outcomes was the maximal PSA response and hematological adverse events (HAE). **Results:** A total of 100 males were included, median age = 74 years old (min-max: 54 - 96 years old). 177Lu-PSMA was the fifth (median) line of therapy (min-max 2-10). A total of 333 cycles were performed with a median of 4 cycles (min-max 1-10). The mean overall survival was 12.8 months. Among the 72 patients with data available for the maximal PSA response at any time, 65% presented any PSA decline. 42% presented PSA decline ≥ 50% from baseline. 89% of patients did not present HAE or presented grades 1 or 2 HAE. Only 11% of patients presented grade 3 HAE. 0% of patients presented grade 4 HAE. **Conclusion:** 177Lu-PSMA therapy was effective and safe in the Brazilian population even with a median of 5th line of therapy (maximum 10th line). Overall survival and PSA decline ≥ 50% from baseline were similar to the literature data. Only 11% of patients presented grades 3 or 4 hematological adverse events.

**Keywords:** 177Lu-PSMA, Prostate cancer, therapy;.

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## CONTRIBUIÇÕES DO PET/CT FDG-18F NA DETECÇÃO DE DOENÇA AVANÇADA NO CÂNCER DE MAMA

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**Introdução Justificativa:** O câncer de mama representa importante causa de morbimortalidade em mulheres, com significativa mudança de prognóstico se diagnosticado de forma precoce e instituída a terapêutica adequada. Alguns estudos apontam que a PET/CT FDG-18F é mais acurada que o estadiamento convencional no pré-operatório, mudando o estadiamento clínico em até 36%. A sensibilidade e a especificidade do estudo em identificar envolvimento linfonodal axilar são de 57-100% e 66-100%, respectivamente, ressaltando-se que o envolvimento microscópico (≤ 10 mm) pode não apresentar expressão ao método. **Objetivos:** O objetivo deste trabalho é avaliar a contribuição da PET-CT FDG-18F na detecção de doença avançada em exames realizados para estadiamento pré-