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Introduction/Justification: Rectal cancer (RC) is one of the leading causes of cancer mortality worldwide. Recent studies indicate that systemic inflammation and nutritional status are associated with the prognosis of cancer patients. The prognostic nutritional index (PNI) has been increasingly studied as a predictor of survival outcome. However, despite these advances, there are few studies evaluating the prognostic capacity of this index in patients with RC. **Objectives:** To analyze the impact of PNI on the survival of patients with non-metastatic RC undergoing oncological treatment. **Materials and Methods:** This is a retrospective, cross-sectional and analytical study. It included patients diagnosed with stage I, II and III rectal carcinoma who had been treated surgically, with or without neoadjuvant and adjuvant chemotherapy, and who were attended to at the Clinical Oncology outpatient clinic of the Hospital das Clínicas of the University of Campinas between January 2000 and December 2016. Patients were categorized into low and high PNI, according to the median of the sample. PNI was calculated using the formula: PNI = (10xserum albumin [g/dl]) + 0.005xlymphocytes/μL). Clinical variables, body composition and systemic inflammatory indices were also analyzed. Body composition was analyzed using computed tomography, and skeletal muscle compartments and subcutaneous and visceral adipose tissue were assessed using SliceOmatic software (Tomovision, Canada). Statistical analyses were carried out using Stata software version 12.0 (Stata Corp LP®). This research was approved by the UNICAMP Research Ethics Committee (CAAE: 22438319.9.0000.5404). **Results:** The sample consisted of 298 patients, 118 of whom had low PNI. The group with low PNI had a lower muscle mass index (p = 0.025) and subcutaneous adipose tissue index (p = 0.044), and higher subcutaneous (p =0.049) and visceral (p = 0.012) adipose tissue radiodensity. Median disease-free survival was 24.5 months for patients with low PNI (HR 1.85; CI 1.30-2.62; p = 0.001). Patients with low PNI had a lower median disease-free survival (mDS) of 24.5 months compared to 107.4 months for the high PNI group [HR 1.85; IC 1.30-2.62; p = 0.001]. Median overall survival (mOS) was 75.3 months for the low NPI group and 140.4 months for the high NPI group (HR 1.67; CI 1.13-2.48; p = 0.011). **Conclusion:** The PNI performed at diagnosis is a prognostic tool for assessing the clinical outcome of patients with non-metastatic RC. Nutritional status and systemic inflammation are associated with survival in cancer patients. The PNI is a marker that combines both conditions and has been shown to be an important prognostic tool for desease-free survival (DFS) and overall survival (OS) in RC. The PNI is a simple, practical tool that uses low-cost clinical evaluation parameters and can therefore be easily implemented in clinical practice.

Keywords: Inflammation, Mortality, Nutritional status.

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EPIDEMIOLOGICAL ANALYSIS OF HOSPITAL ADMISSIONS FOR HODGKIN'S DISEASE IN BRAZIL: 2013-2023

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Introduction/Justification: Lymphomas are neoplasms originating from lymphoid tissue, with Hodgkin's Disease (HD) being noteworthy. HD manifests in two primary types: classical Hodgkin's lymphoma and Nodular lymphocyte-rich lymphoma. The classical types are identified by Reed-Sternberg multinucleated cells, subdivided as nodular sclerosis, mixed cellularity, lymphocyte-rich, and lymphocyte-depletion. The development of HD is linked to various factors, including genetic predisposition, immunosuppression, autoimmune diseases, and exposure to carcinogens. Clinical symptoms commonly observed include pruritus, intermittent fever, nocturnal hyperhidrosis, and lymphadenopathy. Differential diagnosis plays a crucial role in HD identification since clinical symptoms may resemble various other medical conditions, including other lymphoma forms, viral or bacterial infections, and autoimmune diseases, emphasizing the importance of biopsy and thorough investigation. Epidemiological analysis of HD plays a pivotal role in early diagnosis and the implementation of appropriate therapies aiming for eventual patient remission. **Objectives:** To analyze hospitalization data within the Brazilian Unified Health System (SUS), estimating disease incidence across different regions, demographic disparities, treatment costs, and mortality, aiming to provide insights for public health policies to improve management and access to healthcare services for HD patients within the SUS context. **Materials and Methods:** A retrospective study using data from the Department of Health Informatics of SUS (DATASUS) from 2013 to 2023. Data included total hospitalizations, region, age, gender, race, deaths, mortality rate, and average hospitalization cost. **Results:** Brazil recorded 53,297 HD-related hospitalizations from 2013 to 2023. Geographical distribution revealed the Southeast region accounted for the majority of cases (47.64%), followed by the Northeast (24.74%) and South (17.29%). Males comprised the majority of hospitalizations (55.56%), with females representing 44.43%. Regarding race, whites accounted for 43.84% of hospitalizations, followed by mixed race individuals (37.52%). Hospitalizations were most common among individuals aged 20-29 (24.90%), followed by age groups 15-19 (14.85%) and 30-39 (14.34%). There were 2,149 deaths during this period, corresponding to a mortality rate of 4.03%. Based on the average value per hospitalization in SUS, a total of R$135,694,694.97 was spent. **Conclusion:** The epidemiological study reveals a higher incidence of Hodgkin's Disease in the Southeast region, predominantly among males in the age group between 20-29, along with a mortality rate of 4.03% among the hospitalized. These findings emphasize the public health challenge of HD and the need for comprehensive strategies, including awareness campaigns, screening programs, and

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