funcional (10,0 vs. 22,0; p = 0,03). **Conclusão:** Os resultados deste estudo sugerem que a QdV de pacientes com CCECP tratados na UNICAMP pode ser influenciada por fatores sociodemográficos e clínicos. Esses achados destacam perfis de maior vulnerabilidade e reforçam a necessidade de estratégias individualizadas para minimizar os impactos do tratamento na QdV desses pacientes.

Palavras-chave: Aspectos clínicos, Aspectos sociodemográficos, Câncer de cabeça e pescoço, Qualidade de vida.

DUAL-TRACER PET/CT IMAGING IN HEPATOCELLULAR CARCINOMA: COMPARING THE PERFORMANCE OF 18F-FDG AND 18F-PSMA

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A B S T R A C T

Introduction/Justification: Hepatocellular carcinoma (HCC) is a prevalent malignancy with rising incidence in Western countries, often diagnosed at advanced stages. Early detection and accurate assessment of tumor extent are crucial for optimal treatment planning. 18F-FDG PET/CT has limited diagnostic value in HCC. While prostate-specific membrane antigen (PSMA) is primarily a marker for prostate cancer, its association with tumor neoangiogenesis and demonstrated uptake in various malignancies, including HCC, suggests potential diagnostic applications. **Objectives:** This study compared 18F-FDG and 18F-PSMA uptake in PET/CT for evaluating hepatic lesions in HCC. **Materials and Methods:** Eleven patients with HCC were included, six with Barcelona Clinic Liver Cancer (BCLC) staging system stage C (advanced) and five with BCLC stage B (intermediate), with a median age of 74 years (range: 59−86). All patients underwent 18F-FDG and 18F-PSMA PET/CT scans with a one-day interval between them. 18F-FDG images were acquired at 60 and 120 minutes post-injection, while 18F-PSMA images were obtained at 90 and 150 minutes. The maximum standardized uptake value (SUVmax) was measured for all hepatic lesions, and the change between early and delayed images (ΔSUVmax) was calculated. Spearman's rank correlation coefficient (ρ) was used to assess the correlation between SUVmax values for the two radiotracers, with statistical significance set at $\rho < 0.05$. **Results:** Nine of the 11 patients had multiple hepatic lesions. A median of 3 lesions per patient (1−15) was detected with 18F-FDG, and 2 lesions per patient (1−11) with 18F-PSMA, totaling 75 lesions. Fifty-six lesions were positive for both radiotracers, 16 were only for 18F-FDG, and 3 only for 18F-PSMA. In the BCLC-B group (n = 5), 11 lesions were detected with 18F-FDG, 15 with 18F-PSMA, and 32 with both. The median SUVmax (early images) was 6.3 (3.5−8.5) for 18F-FDG and 17.2 (15.0−25.6) for 18F-PSMA. In the BCLC-C group (n = 6), 34 lesions were detected with 18F-FDG, 14 with 18F-PSMA, and 24 with both. The median SUVmax (early images) was 8.1 (4.7−17.2) for 18F-FDG and 23.3 (17.1−50.2) for 18F-PSMA. For BCLC-B patients, the median ΔSUVmax was 17.65% (-6.35% to 28.57%) for 18F-FDG and -30.17% (-9.74% to -50.67%) for 18F-PSMA. For BCLC-C patients, the median ΔSUVmax was 0.00% (-66.67% to 10.47%) for 18F-FDG and -0.47% (-67.26% to 16.37%) for 18F-PSMA. Spearman's correlation between 18F-FDG and 18F-PSMA SUVmax was $\rho = -0.5357$ ($\rho = 0.2357$). **Conclusion:** The 18F-FDG and 18F-PSMA PET/CT provide complementary information for evaluating hepatic lesions in BCLC stage B and C HCC. 18F-FDG detected more lesions, particularly in advanced disease, while 18F-PSMA showed higher uptake, especially in BCLC-C patients. The lack of significant correlation between 18F-FDG and 18F-PSMA SUVmax values suggests they reflect distinct biological processes. This independent uptake pattern may inform treatment strategies. Further research is needed to investigate whether antiangiogenic therapy might be more effective in patients with high 18F-PSMA uptake. The more pronounced 18F-PSMA washout phenomenon observed may have implications for its theranostic potential.

Keywords: 18F-FDG PET/CT, 18F-PSMA PET/CT, Comparative Analysis, Hepatic Lesions, Hepatocellular Carcinoma (HCC).

CT-SEGMENTED BONE SUV IN MULTIPLE MYELOMA: A COMPARATIVE STUDY OF 18F-FDG AND 68GA-PSMA PET/CT

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