VI do fígado, dosimetria realizada pelo método Partition, com resposta completa e necrose da lesão tumoral. Realizou teste do PDL1, com resultado negativo. Foi mantida em tratamento com Bevacizumab (anticorpo monoclonal anti-VEGF humanizado) e o PET/CT de controle, após 3 anos e 3 meses da radioembolização não demonstra atualmente evidência de doença. **Conclusão:** Este é o segundo caso na literatura com resposta completa de metástase hepática por neoplasia do colo do útero, tratado com radioembolização hepática com ítrio-90. A aplicação deste tratamento em metástases hepáticas por diversos tumores como: mama, rim, tumores neuroendócrinos, pâncreas e ovário, tem sido reportados com bons resultados. No entanto, para o colo do útero, são muito poucos os casos descritos. A demonstração de resposta segura e satisfatória ao tratamento locorregional com radioembolização com microesferas de ítrio-90 em metástases não habituais do fígado, possibilita ampliação da indicação deste tratamento em casos bem selecionados.

Palavras-chave: Câncer do colo do útero metastático, Ítrio90, Radioembolização hepática.

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DUAL-TRACER PET/CT IN MYELOFIBROSIS: A CASE SERIES ANALYSIS USING 18F-FDG AND 18F-PSMA PET/CT

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Introduction/Justification: Myelofibrosis, a clonal disorder of hematopoietic stem cells, is characterized by chronic bone marrow inflammation and progressive fibrosis, resulting in hypocellularity and the displacement of neoplastic cells to extramedullary organs such as the spleen and liver, leading to splenomegaly and hepatomegaly. Hematopoietic stem cell transplantation is currently the only curative treatment, with five-year survival rates ranging between 51% and 61%, underscoring the need for novel diagnostic and therapeutic strategies. In recent years, positron emission tomography combined with computed tomography (PET/CT) using 18F-fluorodeoxyglucose (18F-FDG) has emerged as a valuable tool for assessing the glycolytic activity of various neoplasms, although there are limited reports on its utility in myelofibrosis. Concurrently, interest has grown in using the prostate-specific membrane antigen (PSMA) tracer to evaluate the neoangiogenic activity of diverse neoplasms. This study aims to compare glycolytic activity and neoangiogenic activity, assessed through 18F-FDG and 18F-PSMA PET/CT imaging, respectively, in patients with myelofibrosis. **Report:** Three patients diagnosed with myelofibrosis, aged 69, 71, and 74 years, underwent PET/CT scans on consecutive days, acquired 60 minutes after intravenous administration of 0.1 mCi/kg of 18F-FDG and 90 minutes after intravenous injection of 0.1 mCi/kg of 18F-PSMA. The images were analyzed by two nuclear medicine physicians and a radiologist. The maximum standardized uptake value (SUV) of the bone marrow, as well as the SUV and dimensions of the liver and spleen, were measured. Two patients exhibited mild to moderate diffuse increased uptake of both 18F-FDG and 18F-PSMA in the bone marrow (SUV-FDG: 6.4 and 3.5; SUV-PSMA: 3.5 and 1.7). One of them displayed mild hepatomegaly (18.7 cm), and both had marked splenomegaly (21.5 and 30.3 cm). Liver and spleen uptake of 18F-FDG was close to normal in both patients (SUV-FDG: 2.4 to 3.1), while moderate uptake of 18F-PSMA was observed in these organs (SUV-PSMA: 5.6 to 8.4), at least partially physiological and expected for this radiopharmaceutical. The third patient, who had undergone splenectomy, did not exhibit significant uptake of either tracer in the bone marrow but displayed marked uptake of 18F-PSMA in the liver (SUV-PSMA = 14.8), possibly physiological, with normal 18F-FDG uptake (SUV-FDG = 3.9). **Conclusion:** Patients with myelofibrosis appear to exhibit variable degrees of glycolytic activity and neoangiogenesis in the bone marrow, as detected by PET/CT imaging with 18F-FDG and 18F-PSMA. The moderate to marked uptake of 18F-PSMA in the liver and spleen, at least partly physiological, along with the uptake in the bone marrow in some cases, may suggest a theranostic potential of this radiopharmaceutical in myelofibrosis.

Keywords: 18F-FDG, 18F-PSMA, Myelofibrosis, PET/CT.

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