infiltration by large atypical lymphoid cells with prominent nucleoli and a coarse chromatin structure. On immunohistochemical examination, neoplastic cells showed; CD20 (+, diffuse), CD3 (–), MPO (–), Tdt (–), CD1a (–), S100 (–), ALK (–), CD68 (–), CK (–), actin (–), vimentin (–) staining, and the Ki67 proliferation index was 70%. The pathology department reported the mass to be consistent with a diffuse large B cell lymphoma (centroblastic type). Cervical-thoracic-abdominopelvic CT was performed to determine the extent of the disease, and no masses, organomegaly, or enlarged lymph nodes were detected. Bone marrow aspiration and biopsy did not show bone marrow involvement. The patient received chemotherapy consisted of R-CHOP and was administered with six cycles. After chemotherapy, radiotherapy was given at a total dose of 40 Gy as 2 Gy per fraction. The strength of the bilateral lower extremity muscle groups showed daily improvement and the patient was able to walk normally with two courses of chemotherapy, after approximately six weeks. The patient remains in remission without clinical or radiological relapse under follow up after nearly 3 years.

Conclusion: The differential diagnosis of patients who present with a spinal mass should be made carefully. It must be considered that, although rarely, DLBCLs can present as massive disease-causing spinal compression, and that clinically significant improvement can be achieved by timely and effective treatment. In patients who present with spinal compression, early decompression, particularly by means of surgery, is of great importance. Considering that spinal DLBCL is a malignant disease, appropriate treatment approaches play a vital role in achieving neurological recovery, longer survival times, and better life quality.

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PP 24

Comparison of 68ga-psma and 18f-fdg pet/ct uptake in different lymphoma

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Objective: Few reports have documented the uptake of radiolabeled Prostate-Specific Membrane Antigen (PSMA) in lymphomas.[1,2] It is not known how PSMA uptake varies among various histological subtypes and how it correlates with 18F-FDG uptake in lymphomas. This study aimed to compare 68Ga-PSMA and 18F-FDG in different lymphoma subtypes.

Methodology: Nine randomly selected patients with biopsy-proven lymphoma with a median age 43 (32–70) years, 5 female – were submitted to whole-body 18F-FDG and 68Ga – PSMA PET/CT (time interval: 1–6 days between procedures). Lymphoma subtypes included: nodular-sclerosis Hodgkin's lymphoma (HL; 2 patients); diffuse large B-cell lymphoma (DLBCL; 1); marginal-zone lymphoma (2); MALT lymphoma (ML; 1); follicular lymphoma (FL; 1); lymphoplasmacytic lymphoma (1); and B-cell non-Hodgkin's lymphoma, unspecified (BCNHL-U; 1). Eight patients were under initial staging and 1 (HL) with disease relapse after treatment. Two experienced nuclear physicians analyzed the images by consensus. The intensity of tracer uptake was visually classified as marked, moderate or mild. The affected sites (lymph node chains, spleen, diffuse bone marrow involvement and non-lymphatic focal lesions) were counted in both sets of images and their respective maximum SUV (SUVmax) were measured.

Results: PSMA PET/CT was positive in all patients except for one with ML. FDG PET/CT was positive in all patients. At visual analyses, FDG uptake was higher than PSMA uptake in all patients, except for one patient with BCNHL-U (both tracers with similar low-intensity uptake). The intensity of FDG and PSMA uptake was respectively classified as marked in 3/9 and 0/8 patients, moderate in 4/9 and 1/8 and mild in 2/9 and 7/8. One patient (FL) presented a "mismatch" uptake pattern with different parts of an extensive lesion presenting predominant uptake of PSMA or FDG. Brain infiltration in one patient (DLBCL) was more easily identified on PSMA than on FDG images. FDG detected a total of 58/58 and PSMA 43/58 affected sites in all patients with a median SUVmax of respectively 5.4 (2.0–31.1) and 2.8 (1.3–5.4), $p < 0.0001$. The median SUVs of the 43 lesions with uptake of both tracers was respectively 5.5 (2.0–28.9) and 2.8 (1.3–5.4) for FDG and PSMA, $p < 0.0001$.

Conclusion: Distinct lymphoma subtypes present PSMA uptake, with less intensity than FDG uptake. Although PSMA uptake is usually mild, several lymphoma subtypes might cause false-positive results in PSMA PET/CT performed to assess prostate cancer.

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PP 25

Prognostic value of pre-treatment neutrophil-lymphocyte and platelet-lymphocyte ratio in diffuse large B-cell lymphoma: a single-center experience

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Objective: The neutrophil-lymphocyte ratio (NLR) and platelet-lymphocyte ratio (PLR) as inflammatory biomarkers have emerged as prognostic factors for patients with cancer.