two chemotherapy cycles, there was a significant improvement in motor weakness and the fecal and urinary function impairment. After a total of 6 cycles, spinal MRI and FDG-PET CT showed complete disappearance of the lesion. The patient remains in remission, at 1-year follow-up.

Conclusion: This report presents a case of primary spinal MALT lymphoma, which is extremely rare. Lymphoma should be considered in the differential diagnosis of patients who present with a spinal mass and the subtype of the lymphoma must be identified. The management of MALT lymphomas is quite heterogenous and there exist no universally-accepted therapeutic guidelines for this rare condition. A treatment option must be selected in consideration of the disease subtype, stage, and the clinical characteristics of the patient. In spinal MALT lymphoma, both local and systemic treatment options are available. Local treatments such as surgical resection or radiotherapy can achieve complete remission in patients with MALT lymphomas confined to a single site or at early stages. Systemic treatment is an option for patients who are not suitable for local treatment and appropriate patients may be administered systemic chemotherapy regimens that include anti-CD20 monoclonal antibodies.

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PP 22

Ir2 leading to complete remission in r/r richter syndrome – a case report

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Introduction: Relapsed and refractory diffuse large B Non-Hodgkin lymphoma (r/r DLBCL) is a severe condition with fatal outcome for the majority of the patients. (1) Richter Syndrome is defined as a transformation of chronic lymphatic leukemia in a highly aggressive B-Non-Hodgkin lymphoma, mainly DLBCL. 20% of Richters Syndromes are de novo DLBCL, implying comparable prognosis to other aggressive Non-Hodgkin Lymphoma, whereas 80% are clonally related to the CLL cells and imply a poor prognosis of one-year median overall survival. (2) Despite huge efforts that have been achieved recently by implementing CAR-T Cells for r/r DLBCL and transformed Follicular Lymphoma, treatment of r/r Richter syndrome remains desperate with poor outcome. Allogenic stem cell transplantation is recommended for eligible patients. The combination of Anti CD 20 Antibody Rituximab with IMiD Lenalidomide and Bruton-kinase inhibitor Ibrutinib iR2 has shown safety and efficacy in a breaking phase II study. (2)

We present the rare case of a patient with refractory DLBCL after CLL (Richter Transformation) who achieved complete remission with iR2 and was successfully transplanted.

Case report: Our by now 74-year old patient was first diagnosed with CLL in 08/2014. He showed ubiquitous lymph nodes and evidence of p53 mutation, Binet stage B & RAI I.

He was treated with Ofatumumab + Bendamustine in the first line, Rituximab + Idelalisib in first relapse and Ibrutinib in second relapse before evolving to highly aggressive B-NHL in 10/2019. Richters Syndrome was first treated with Standard Immunochemotherapy (R-CHOP), before switching to Rituximab + Ifosphamid + Etoposid + Carboplatin (R-ICE) for refractory disease. There was further progress (clearly progressive lymph nodes cervical) after first cycle R-ICE chemotherapy, we decided to treat with a combination of immunotherapy with the Anti CD 79a-Antibody Polatuzumab in combination with Rituximab. Unfortunately, we saw again progressive disease after three cycles, that lead to the decision of experimental application of Ibrutinib in combination with Rituximab and Lenalidomid.

We saw an immediate effect as Lactat-dehydrogenase normalized very soon and lymph nodes disappeared completely.

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PP 23

Primary spinal extramedullary diffuse large B-cell lymphoma presenting with initial spinal cord compression: a case report

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Objective: Extranodal lymphomas, by definition, can involve any organ or tissue. Brain parenchyma, spinal cord, eyes, cranial nerves, and meninx are extranodal regions that show involvement at much lower rates. It is quite rare for lymphoma patients to present to the hospital with symptoms and findings associated with spinal cord compression as the initial presentation. This condition can lead to irreversible autonomic dysfunction, and motor and sensory loss. Here, we present a rare primary spinal intradural extramedullary diffuse large B-cell lymphoma (DLBCL) case who presented with acute neurological symptoms and no findings of cerebral involvement or involvement at any other site.

Case report: A 41-year-old male patient presented to our hospital with thoracic back pain and progressive complaints of weakness, numbness and difficulty in ambulation in bilateral lower extremities. On spinal MRI examination, a well-circumscribed intradural extramedullary mass with a craniocaudal extension of 6 cm and an AP diameter of 1 cm that was isointense to the spinal cord on T1-weighted sequences and slightly hyperintense on T2-weighted series, and showed diffuse homogenous contrast enhancement after intravenous contrast agent injection was determined between the vertebral levels T6 and T8. In the surgical operation, the mass showed partial invasion of the vertebral bone and the surrounding muscle. The mass invading the dura was resected and laminectomy was performed at T6-T9. On histopathological examination of the mass, there was diffuse malignant

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.