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Case Report

Rare skin and testicular extranodal involvement in a patient with marginal zone lymphoma on 18F-FDG PET-CT imaging

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Abstract

Hodgkin lymphoma (HL) and Non-Hodgkin lymphoma (NHL) are the malignant neoplasm spectrum originating from the lymphoid system and constituting 8% of all malignancies. Although, both are known as primary malignancies of lymph nodes, extranodal involvement can be seen. In this case presentation, in addition to nodal and bone involvement areas in a patient diagnosed as marginal zone lymphoma, rare simultaneous testicular and skin extranodal involvement detected on 18F-FDG PET-CT imaging were presented.

Abbreviations: Hodgkin lymphoma-HL, Non-Hodgkin lymphoma-NHL, Marginal zone lymphomas-MZL

Introduction

Extranodal involvement areas such as gastrointestinal, head and neck, orbital, central and peripheral nervous system, thorax, bone, skin, breast, testis, thyroid and genitourinary system can be seen in 25-40% of HL and especially NHL patients, although it is known as lymph node malignancy [1,2]. Extranodal involvement is important in terms of prognosis and imaging procedures play a very important role in diagnosis. 18F-FDG PET-CT imaging is a standard method in lymphoma patients and has a special importance in these patients in terms of superiority of CT imaging in detecting extranodal regions. The role of 18F-FDG PET-CT in detection, staging and restaging of patients with extranodal involvement in NHL has also been reported in the literature [3,4]. In this case presentation, in addition to nodal and bone involvement areas in a patient diagnosed as marginal zone lymphoma, rare testicular and skin extranodal simultaneous involvement detected on 18F-FDG PET-CT imaging were presented.

Case report

A 72-year-old male patient diagnosed as marginal zone lymphoma following mass excision from the left thoracic cage underwent 18F-FDG PET-CT imaging for initial staging. PET-CT images showed hypermetabolic (SUVmax: 14.66-31.89) conglomereted lymphadenopathies in the bilateral cervical chain, supraclavicular area, bilateral axillary, mediastinal, retroperitoneal, paraaortic, peripancreatic, perigastric, liver hilum, paracoeliac regions, pericardial thickening-effusion and hypermetabolic (SUVmax: 3.32-12.83) bone lesions. Additionally, multiple subcutaneous hypermetabolic (SUVmax: 10.5-24.37) nodules were detected at various levels within the cross-sectional area. In addition; Testis lymphoma FDG uptake (SUVmax: 20.26) was noted in the right hemiscrotum (Figure 1). Testis lymphoma has been proved by excisional biopsy.

Discussion

Marginal zone lymphomas (MZL) are defined as a heterogeneous group of lymphomas although, can originate from the spleen, lymph nodes and extra-nodal lymphoid tissue, termed as "marginal zone" and formed of B-lymphocytes. Testicular involvement is a very rare entity. Testicular lymphoma can be primary or secondary to extensive

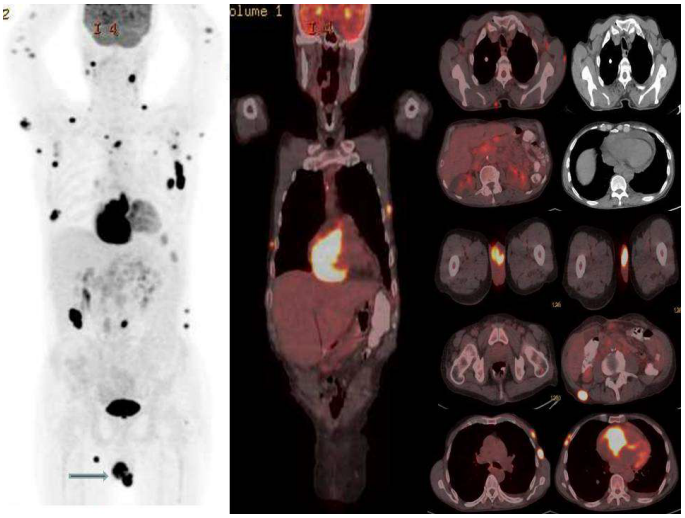

Figure 1. 18F-FDG PET-CT Image showing the spread of Lymphoma.

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disease. Inguinal and retroperitoneal lymph nodal spread can also be seen in some patients [3]. In our case, there was abnormally increased asymmetric FDG uptake in the enlarged right testis. Also, multiple para-aortic lymph nodes showed abnormal FDG accumulation, as if spreading from involved testis by lymphomatous way. Yin et al. reported a case of a 55-year-old man with NHL of the left testis and of the bilateral adrenals detected by 18F-FDG PET-CT and demonstrated its role in the diagnosis and assessment of therapeutic response [5]. Multiple isolated cases with extranodal involvement of NHL, detected on PET-CT, have been previously reported [5-8]. In this case report, in addition to nodal involvement areas in a patient diagnosed as marginal zone lymphoma, rare areas of testicular and skin extranodal involvement detected by 18F-FDG PET-CT imaging is presented. Patients with abnormal testicular involvement should undergo further examination and confirmation of the finding is necessary.

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