Manifestation of lymphoma expansion following lymphatic drainage on ^{18}F -FDG PET/CT

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^{18}F -fluorodeoxyglucose (FDG) positron emission tomography (PET) imaging is strongly recommended in patients with diffuse large B-cell lymphomas (DLBCL), which are routinely highly FDG avid, for adequate disease staging [1]. The mean standardized uptake value (SUV) can be used to distinguish aggressive from indolent lymphoma variants [2]. PET scanning is a reliable method for the diagnosis of DLBCL compared with the reference method immunohistology [3].

We present a case of a 70-year-old female patient who presented to the hospital with progressive swelling, pain and loss of sensibility in her right lower limb. Nine months earlier she had been diagnosed with DLBCL, localized in the lungs, mediastinum and mesenterium for which she was treated with rituximab plus cyclophosphamide, doxorubicin, vincristine and prednisone (R-CHOP) chemotherapy. ^{18}F -FDG PET/CT scanning was performed for restaging of lymphoma disease in this patient.

^{18}F -FDG PET/CT showed an extensive lesion in the right lower limb, with extremely high avidity for FDG, corresponding with tumour mass in muscular tissue on the low-dose CT (figure). It was spreading upwards, following

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the lymphatic drainage system and surrounding vessels, up to the right groin region. The SUV_{mean} of this large lesion was 16.4 (calculation conforming to the EANM procedure guidelines for tumour PET imaging [4]). Further on, a lesion was detected dorsally in the right lung.

Biopsy of the swelling in the right lower limb revealed aggressive DLBCL recurrence. This aggressive form was already expected due to the high SUV_{mean} value. This scan

shows how aggressive DLBCL can appear as a fast growing lymphoma with an atypical configuration by following the lymphatic drainage.

Conflicts of interest None.

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