

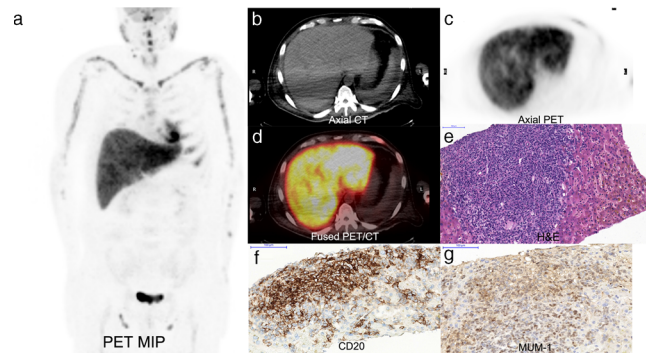
# $^{18}\text{F}$ -FDG hepatic superscan caused by a non-germinal center subtype of diffuse large B-cell lymphoma

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Diffuse hepatic infiltration of lymphoma is extremely rare [1]. Conventional imaging techniques (CT, MR and ultrasound) usually fail to identify the abnormality.  $^{18}\text{F}$ -FDG PET is valuable in detecting diffuse hepatic diseases [2, 3].

A 58-year-old man was admitted to our hospital owing to fever of unknown origin for 2 weeks and jaundice for 10 days. Non-contrast CT images of chest, abdomen and pelvis showed a tender hepatomegaly, splenomegaly and ascites. A hepatic focal or diffuse lesion and enlargement of lymph nodes were not shown. Ultrasound identified hepatomegaly without any definite hepatic lesions. Magnetic resonance cholangiopancreatography results (MRCP) were negative. Hematology-oncology consultation suggested a possible diffuse malignant infiltration process such as lymphoma or leukemia. Subsequently, a bone marrow biopsy and whole-body  $^{18}\text{F}$ -FDG PET/CT scan were performed. There was no evidence of malignancy on bone marrow biopsy. PET/CT images (a–d, Note: The artifact on b & d is because the patient could not lift his arms during the examination) demonstrated diffuse increased  $^{18}\text{F}$ -FDG uptake in the entire liver (“hepatic superscan”). PET/CT images strongly indicated the diagnosis of hepatic lymphoma. Liver biopsy showed a non-germinal center subtype of diffuse large B-cell lymphoma.



Immunohistochemical stains (e–g) were positive for CD20 and MUM-1, and negative for CD10 and BCL-6. The patient died 2 days after liver biopsy due to rapid progression of the disease; an autopsy was not performed.

This case highlights PET, rather than other imaging techniques, is of great value in detecting diffuse hepatic infiltration of lymphoma with characteristic appearance of “hepatic superscan”.

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