European Journal of Nuclear Medicine and Molecular Imaging (2020) 47:2925–2926
https://doi.org/10.1007/s00259-020-04824-9

IMAGE OF THE MONTH

Hepatic candidiasis mimicking lymphoma on ^{18}F-FDG PET/CT in a patient with T cell lymphoma

Sandra Schwerz[1] · Marguerite Mueller[1] · Katharina Lindemann-Docter[2] · Alexander Heinzel[1] · Felix M Mottaghy[1,3] · Mohsen Beheshti[1,4]

Received: 17 March 2020 / Accepted: 8 April 2020 / Published online: 26 April 2020

A 19-year-old woman with a history of lymphoblastic T cell lymphoma and mediastinal residual mass after chemotherapy underwent ^{18}F-FDG PET/CT for assessment of treatment response. Informed consent was obtained from the participant included in the study. ^{18}F-FDG PET/CT showed multiple foci with intensive tracer uptake in both hepatic lobes (A and C—arrows), suggestive of hepatic candidiasis mainly because of the history of previous hepatic candidiasis abscesses (4 months before). However, due to lack of clinical symptoms, intensive ^{18}F-FDG avid lesions under antifungal therapy, borderline serum beta-D-glucan (63 pg/mL), and differential diagnosis of liver metastases of lymphoma, further histological verification was performed. The histopathological findings (hematoxylin and eosin stain) revealed focal fibrosis with proliferating bile ducts, foamy cells, and lymphocytes (G and H), correlating with reactive and resorptive processes following the preexisting hepatic abscesses (E and F). Antifungal treatment with posaconazole 300 mg was continued leading to complete remission of the disease assessed by follow-up ^{18}F-FDG PET/CT after 3 months (B and D). The residual mediastinal mass showed only faint uptake on both ^{18}F-FDG PET/CT studies suggestive of Deauville score 2.

This case presents an unusual pitfall of ^{18}F-FDG PET/CT in assessment of liver disease and emphasizes again on the value of ^{18}F-FDG PET/CT in the detection of invasive fungal infection, a severe infection in the immunocompromised patients, and also its usefulness in assessing response to treatment [1–4].

This article is part of the Topical Collection on Image of the month.

✉ Mohsen Beheshti
mbeheshti@ukaachen.de

[1] Department of Nuclear Medicine, University Hospital, RWTH University, Pauwelsstrasse 30, 52074 Aachen, Germany

[2] Department of Pathology, University Hospital, RWTH University, Aachen, Germany

[3] Department of Radiology and Nuclear Medicine, Maastricht University Medical Center, Maastricht, Netherlands

[4] Department of Nuclear Medicine, Paracelsus Medical University, Salzburg, Austria

Funding Information Open Access funding provided by Projekt DEAL.

Compliance with ethical standards

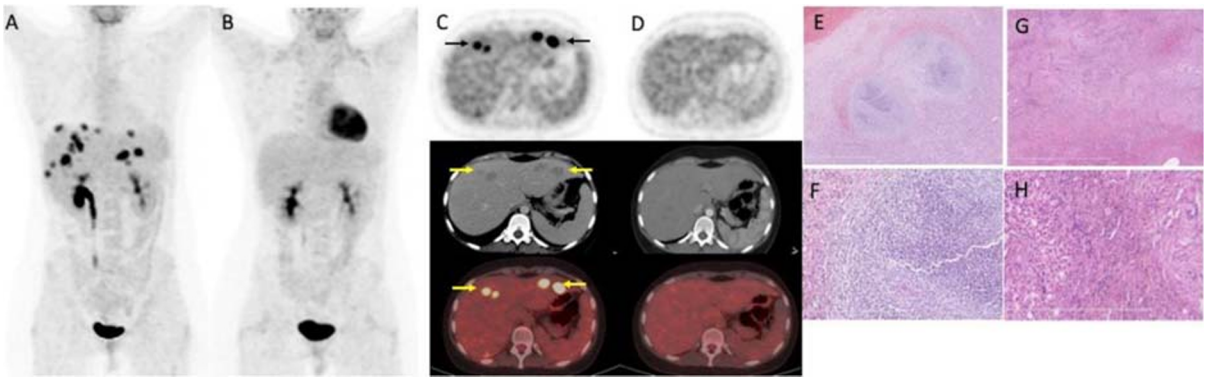
Conflict of interest The authors declare that they have no conflict of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from the participant included in the study.

References

1. Albano D, Bosio G, Bertoli M, Petrilli G, Bertagna F. Hepatosplenic candidiasis detected by (18)F-FDG-PET/CT. Asia Oceania J Nuclear Med Biol. 2016;4(2):106–8.
2. Leroy-Freschini B, Treglia G, Argemi X, Bund C, Kessler R, Herbrecht R, et al. 18F-FDG PET/CT for invasive fungal infection in immunocompromised patients. QJM : Monthly Journal of the Association of Physicians. 2018;111(9):613–22.



3. Ankrah AO, Span LFR, Klein HC, de Jong PA, Dierckx R, Kwee TC, et al. Role of FDG PET/CT in monitoring treatment response in patients with invasive fungal infections. Eur J Nucl Med Mol Imaging. 2019;46(1):174–83.
4. Douglas AP, Thursky KA, Worth LJ, Drummond E, Hogg A, Hicks RJ, et al. FDG PET/CT imaging in detecting and guiding management of invasive fungal infections: a retrospective comparison to conventional CT imaging. Eur J Nucl Med Mol Imaging. 2019;46(1):166–73.