

Disseminated tuberculosis infection: a ‘super’ ¹⁸F-FDG PET/CT appearance

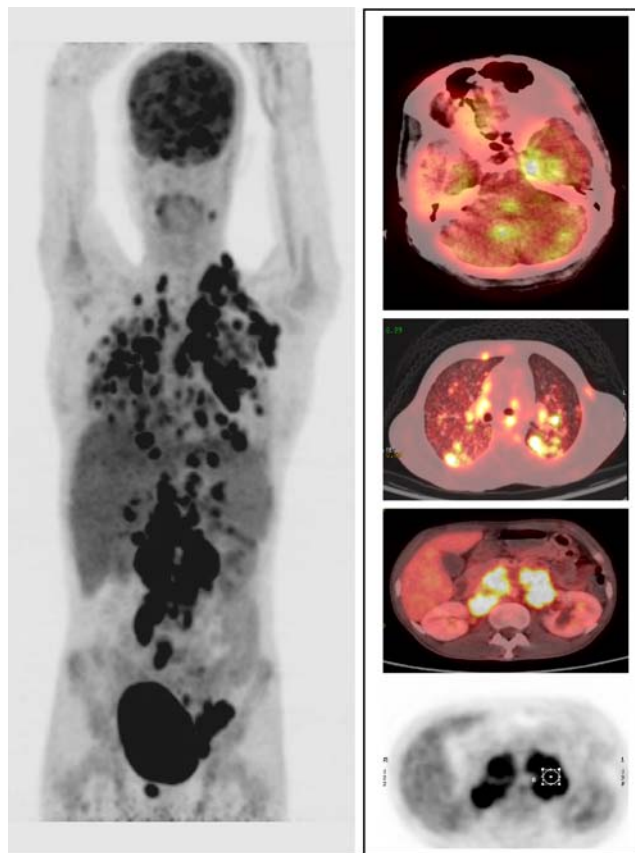
Abdul Jalil Nordin · Claudio Rossetti ·
Noraini Abdul Rahim

Received: 11 January 2009 / Accepted: 24 February 2009 / Published online: 19 March 2009
© The Author(s) 2009. This article is published with open access at Springerlink.com

A 28-year-old immigrant presented with a 2-week history of throbbing headache. Contrast-enhanced computed tomography (CECT) examination showed multiple brain abscesses. He is a known defaulter from miliary tuberculosis treatment. ¹⁸F-FDG PET/CT demonstrated multiple visually high metabolic activity lesions disseminated in the brain, thorax, abdomen and pelvis [1]. The maximum standard uptake values (SUV_{max}) of these lesions were substantially > 3.0 and comparable to the uptake of FDG-avid malignant lesions. These findings demand careful image interpretation implicating false-positive results [2, 3]. Our case illustrates the usefulness of ¹⁸F-FDG PET/CT in mapping active tuberculous lesions which can be used for baseline study [4].

Acknowledgement This paper was supported by International Atomic Energy Agency and Research University Grant UPM in 2008.

Open Access This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.



References

1. Zhuang H, Yu JQ, Alavi A. Applications of fluorodeoxyglucose-PET imaging in the detection of infection and inflammation and other benign disorders. *Radiol Clin North Am* 2005;43:121–34. doi:10.1016/j.rcl.2004.07.005.
2. Hofmeyr A, Lau WF, Slavin MA. Mycobacterium tuberculosis infection in patients with cancer, the role of 18-fluorodeoxyglucose positron emission tomography for diagnosis and monitoring treatment response. *Tuberculosis (Edinb)* 2007;87:459–63. doi:10.1016/j.tube.2007.05.013.
3. Metser U, Miller E, Lerman H, Even-Sapir E. Benign non-physiologic lesions with increased 18F-FDG uptake on PET/CT: characterization and incidence. *AJR Am J Roentgenol* 2007;189(5):1203–10. doi:10.2214/AJR.07.2083.
4. Kumar R, Chauhan A, Zhuang H, Alavi A. Assessment of therapy response by fluorine-18 fluorodeoxyglucose PET in infection and inflammation. *PET Clin* 2006;1:191–8. doi:10.1016/j.cpet.2006.03.002.

A. J. Nordin (✉)
Nuclear Imaging Unit, Faculty Medicine and Health Sciences,
University Putra Malaysia,
Serdang 43400, Malaysia
e-mail: drimaging@yahoo.com

C. Rossetti
Department of Advanced Technology (Nuclear Medicine),
Ospedale Niguardia,
Milan, Italy

N. A. Rahim
Radiology Department, Serdang Hospital,
Serdang, Malaysia