



Letter to the Editor

Response to the review article “Imaging in extrapulmonary tuberculosis” from the International Atomic Energy Agency Extra-pulmonary TB Consortium; March 2017, volume 56, pages 237–247



We read with interest the review article entitled “Imaging features of extrapulmonary tuberculosis” (EPTB), which rightly concludes that imaging plays an important role in the diagnosis and follow-up of EPTB (Gambhir et al., 2017). However, rather than a systematic review of all available modalities, this review appears to have focused on promoting the potential role of positron emission tomography–computed tomography (PET–CT) imaging, as the authors concluded that it may play a role in the diagnosis and follow-up of patients, especially in developing countries. The group also reported CT as the modality of choice for abdominal TB and emphasized the importance of magnetic resonance imaging (MRI) as a safe imaging modality in paediatric populations. We are concerned that these extremely high-cost modalities are promoted for patients in developing countries in one and the same article highlighting woefully inadequate current diagnostics and calling for rapid and repeatable imaging modalities. In our opinion, the established and more realistic contributions of plain X-ray and (point-of-care) ultrasound in the diagnosis and management of EPTB have been underrepresented.

Resource constraints severely limit access to PET–CT, CT, MRI, and often X-rays in low- and middle-income countries where TB burdens are highest (Pedrazzoli et al., 2017). EPTB includes pleuritis, pericarditis, and mediastinal lymphadenitis, which are more common than EPTB at many sites described in this review and which are usually easily detected with chest X-ray and/or ultrasound. Several of the PET–CT cases illustrated could have been diagnosed and treated with these simple modalities alone. Abdominal TB findings such as lymphadenopathy, ascites, hepato-splenic lesions, and ileo-cecal pathology are often visible on ultrasound. In HIV-infected adults in TB endemic settings, these findings have a high reported accuracy for EPTB diagnosis (Heller et al., 2013; Spalgais et al., 2013). Ultrasound, which does not carry the risk of radiation, is easily repeatable and does not require sedation in small children. Ultrasound can also guide aspirations for microbiological assessment; with the ever-increasing threats of multidrug-resistant TB, samples for microbiology are increasingly required to ascertain drug sensitivity patterns. Even where access to X-ray is limited, bedside ultrasound is becoming increasingly widespread due to portable low-cost devices and performance by non-radiologist clinicians (Heller et al., 2016). While the high-cost imaging modalities described in this review may have some benefits in high-resource settings, the overwhelming majority of patients with suspected EPTB live in under-resourced healthcare

systems; for these patients, ultrasound and plain X-ray are the imaging modalities of choice for the diagnosis and treatment of EPTB.

Conflict of interest

None of the authors has a conflict of interest.

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