IDCases 9 (2017) 1–3

Contents lists available at ScienceDirect

IDCases

journal homepage: www.elsevier.com/locate/idcases

Case illustrated

Osteomyelitis due to Mycobacterium kansasii in a patient with sarcoidosis

N. van Herwaarden[a,*], H. Bavelaar[b], R. Janssen[c], A. Werre[d], A. Dofferhoff[a]

[a] Department of Internal Medicine, Canisius Wilhelmina Ziekenhuis, Nijmegen, The Netherlands
[b] Department of Microbiology, Canisius Wilhelmina Ziekenhuis, Nijmegen, The Netherlands
[c] Department of Pulmonary Medicine, Canisius Wilhelmina Ziekenhuis, Nijmegen, The Netherlands
[d] Department of Surgery, Canisius Wilhelmina Ziekenhuis, Nijmegen, The Netherlands

A 45-year-old male presented with severe pain in his left foot. His medical history included stage IV biopsy-proven pulmonary sarcoidosis diagnosed six years earlier, with negative acid-fast stain in lymph node biopsy and bronchoalveolar lavage (BAL) fluid. Recently, despite 10 mg prednisolone daily, a positron emission tomography/computer tomography (PET/CT) scan had suggested increased sarcoidosis activity (Fig. 1). Radiographs showed an apparent fracture in the third metatarsal bone (Fig. 2), for which he received a cast. Ten days later, he presented with uncontrollable pain, redness and warmth of his left foot. For possible cellulitis, he was prescribed oral amoxicillin and clavulanate (625 mg thrice daily) without favorable effect. A week later, new radiographs showed a progressive osteolysis of the third metatarsal bone (Fig. 3). Laboratory findings included a C-reactive protein of 133 mg/L and a white blood count of 15.1×10^9/L. Because of suspected osteomyelitis, drainage was performed and empirical treatment with cefazoline (1 g thrice daily) was started. Surprisingly, staining of the collected tissue showed acid-fast bacilli, PCR positive for *Mycobacterium (M.) kansasii*. Treatment was switched to rifampicin (600 mg once daily), ethambutol (15 mg/kg once daily) and clarithromycin (500 mg twice daily). With no clues for direct inoculation, a BAL was performed, also yielding *M. kansasii*. Immune workup showed a negative HIV test, but low CD4+ T-cell counts (210×10^6/L). Surgical repair of the third metatarsal bone was successfully performed after eight weeks. Antimicrobial treatment will be continued for at least one year.

Disseminated infection with osteomyelitis is a rare complication of pulmonary M. kansasii infection and often occurs in the immunocompromised host, such as HIV positive patients, or sarcoid associated CD4+ lymphopenia as in our patient. Also, the pulmonary infection with M. kansasii mimicked activity of the underlying pulmonary sarcoidosis, hampering early diagnosis and treatment.

* Corresponding author.
E-mail addresses: n.vanherwaarden@cwz.nl (N. van Herwaarden), h.bavelaar@cwz.nl (H. Bavelaar), rob.janssen@cwz.nl (R. Janssen), a.werre@cwz.nl (A. Werre), a.dofferhoff@cwz.nl (A. Dofferhoff).

http://dx.doi.org/10.1016/j.idcr.2017.04.001
Received 1 April 2017; Accepted 8 April 2017

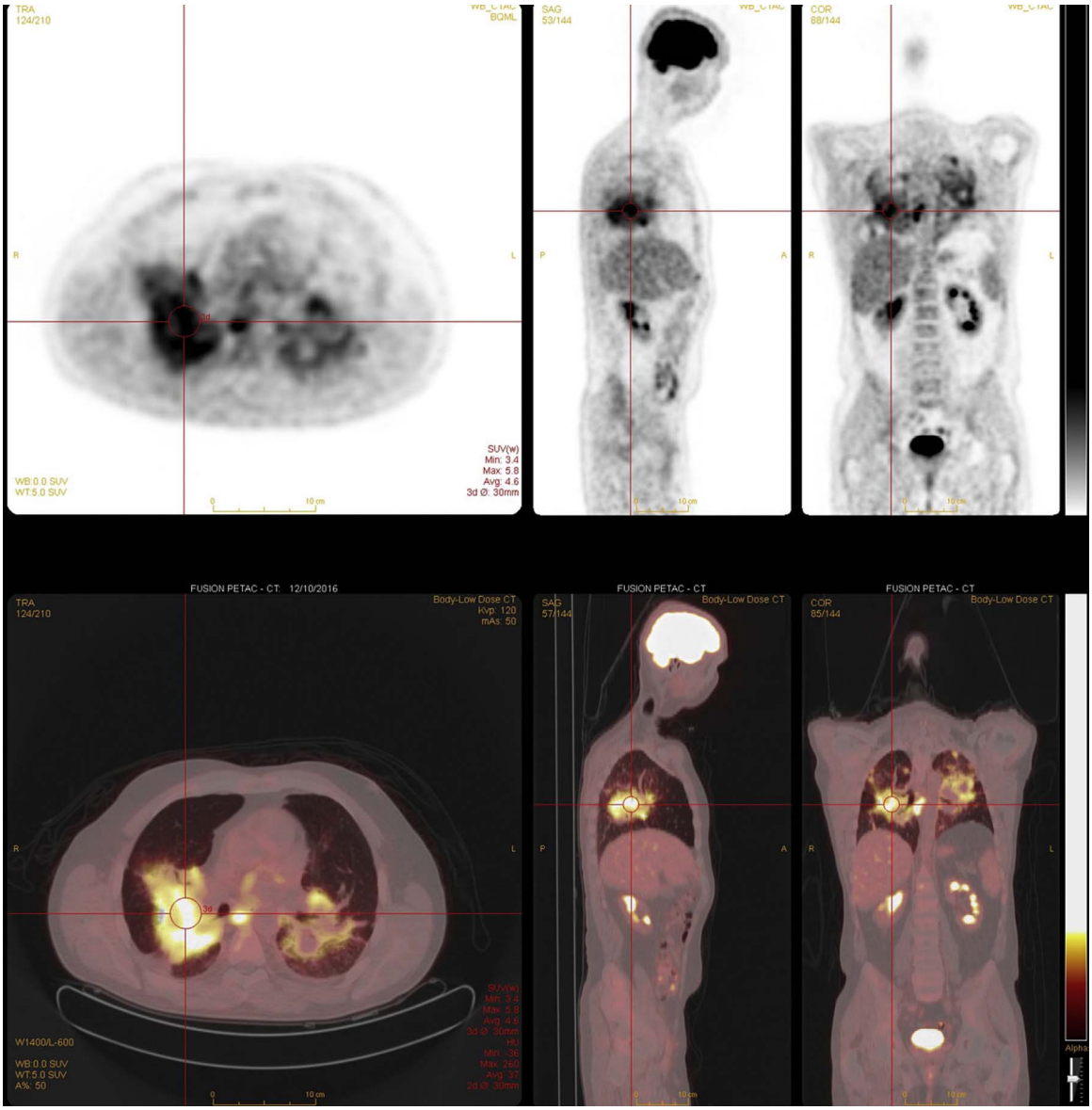

Fig. 1. FDG-PET/CT scan showing increased pulmonary uptake.

Fig. 2. Radiograph of left foot at time of presentation showing a suspected fracture in the third metatarsal bone.

Fig. 3. Radiograph of left foot about two weeks after the first radiograph showing osteolysis of the third metatarsal bone.

Authors' contributions

NvH wrote the manuscript draft and selected the figures. HB, RJ, AW and TD contributed to the preparation of the manuscript.

Conflict of interest

None of the authors declare conflict of interest concerning this manuscript.

Funding

None.

Ethics committee approval

None obtained. Patient approval: Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.