Multifocal skeletal tuberculosis

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A 54-year-old diabetic, hypertensive smoker (60 pack years) with chronic kidney disease Stage V and on dialysis, presented with hoarseness and weight loss. His hemoglobin was 9 g/dL, erythrocyte sedimentation rate (ESR) 60 mm at the first hour, blood urea 7 mmol/L and serum creatinine 70 µmol/L. Computed tomography (CT) of the chest showed a mass in the hilum of the left lung and enlarged mediastinal and cervical lymph nodes. Meanwhile, he developed a high-grade fever, low back pain and painful fixed flexion of both hip joints. The X-rays of both hip joints and the lumbosacral spine were normal. In clinical assessment, bronchogenic carcinoma with skeletal secondaries was suspected. The results of the 18-F Fluoro deoxy glucose (FDG) Positron Emission Tomography (PET)-CT scan showed increased tracer uptake in the mediastinal and cervical lymph nodes, left lung hilum, dorsal vertebrae, bilateral iliococ muscles, bilateral hip joints and acetabulum of the right femur (Figure 1). Fine-needle aspiration of the left iliococ muscle revealed pus with plenty of polymorphs. Tuberculosis (TB) polymerase chain reaction evaluation of the pus was positive. He was initiated on antituberculosis treatment. Mycobacterium TB (MTB) was grown after 6 weeks. The diagnosis was multifocal skeletal TB (MFSTB).

MFSTB is an entity where osteoarticular lesions occur simultaneously at two or more locations [1]. MFSTB constitutes less than 5% of skeletal TB. MFSTB is more common in those who are immunocompromised, or on hemodialysis [1]. The radiological evaluation reveals multiple destructive lesions in the bone, which may be confused with secondary or primary osseous lesions. Hence, the diagnosis of MFSTB is ultimately confirmed on histopathology or on microbiological studies. In our patient, lymph nodes and multiple skeletal sites were involved. Microbiological evaluation confirmed MTB.

In conclusion, in the presence of multiple skeletal lesions in patients on dialysis, MFSTB should be considered in the differential diagnosis. MFSTB is a great mimicker of malignancy and hence requires early confirmation.

Conflict of interest statement. None declared.

Reference


Fig. 1. 18-F FDG PET-CT maximum intensity projection (MIP) image, showing the increased FDG localization in multiple muscoskeletal lesions and lymph nodes.