

IMAGES IN EMERGENCY MEDICINE

Infectious Disease

Unveiling the silent invader: A Haitian immigrant presenting with non-traumatic back pain

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1 | CASE PRESENTATION

A 35-year-old Haitian male presented to the emergency department with a 7-day history of non-traumatic lower thoracic back pain. History revealed no urinary or neurologic “red flag” symptoms. On physical examination, he was afebrile with pain exacerbated by sitting in an upright position. His neurological examination was normal and non-focal. Due to the patient’s recent immigration status and country of origin, computed tomography (CT) imaging was obtained.

2 | DIAGNOSIS: TUBERCULOSIS SPONDYLITIS (POTT’S DISEASE)

CT demonstrated T8–T10 vertebral disease with concerning phlegmonous and sclerotic changes of the thoracic spine (Figures 1 and 2). Magnetic resonance imaging (MRI) of the thoracic and lumbar spine showed discitis and osteomyelitis from T8 to T11 suggestive of tuberculosis spondylitis (Figure 3). CT-guided fine needle aspiration of the phlegmon demonstrated necrotizing granulomatous. Positive QuantiFERON-TB and immunohistochemical stains confirmed tuberculosis spondylitis. The patient was treated with rifampin, isoniazid, pyrazinamide, and ethambutol.

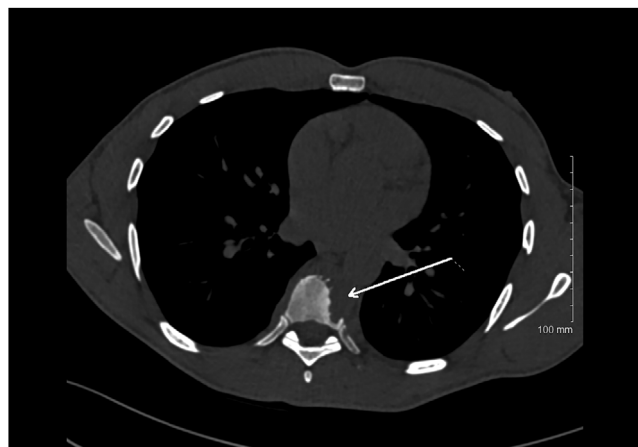


FIGURE 1 Computed tomography (CT) axial view demonstrated phlegmon with invasion of vertebral body at T9. Osseous sclerosis with associated erosive changes (white arrow).

2.1 | Radiological pearls

The spread of infection via the venous plexus of Batson is subligamentous, beneath the anterior longitudinal ligament involving multiple levels, and sparing posterior elements; it commonly involves

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FIGURE 2 Computed tomography (CT) sagittal view demonstrated phlegmon with invasion of vertebral body at T9. Osseous sclerosis (#1), erosive changes (#2) and disc space preserved (#3).

the thoracic spine.^{1,2} Tuberculosis spondylitis spares the disc space heights until advanced disease, unlike pyogenic infections.³ Tuberculosis spondylitis usually involves a large paraspinal abscess with smooth enhancing walls and systemic involvement of multiple organs.⁴

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.



FIGURE 3 Magnetic resonance imaging (MRI) of the thoracic spine sagittal STIR (Short-TI Inversion Recovery) at T9-10 demonstrates ventral epidural phlegmonous changes slightly eccentric to the left. Effacement of the thecal sac with moderate spinal canal stenosis. Mild right and moderate to severe left neural foraminal narrowing. Multiple levels of subligamentous phlegmon spread (between arrows T7-T11).

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