Pott's disease associated with large and multiple abscesses in a 30-year-old migrant from Chad

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DESCRIPTION

After a 1-year history of increasing mechanical back pain, a 30-year-old Chadian man with no medical record progressively developed a voluminous paravertebral mass (figure 1A). He described night sweats without fever for several months associated with a 20 kg weight loss (admission weight at 68 kg). Physical examination revealed no neurological defect. Laboratory tests showed a biological inflammatory syndrome with C reactive protein (CRP) plasmatic level at 80 mg/L and fibrinogen at 5.1 g/L. A vertebral MRI showed a T11–T12 vertebral osteomyelitis with a discal and corporeal abscess surrounded by important adjacent bone oedema, epiduritis causing mild spinal cord compression, as well as voluminous, prevertebral (12×8×5 cm), left psoas (9×8×8 cm) and retrovertebral (16×5×4 cm) liquid collections with peripheral contrast enhancement, suggestive of abscesses (figure 1B–D). Culture of the punctured collection of the retrovertebral abscess yielded multisusceptible *Mycobacterium tuberculosis*. Body scan revealed no other disease localisation. HIV serological test was negative and CD4 + T cell count (609/mm³, 51% of total lymphocytes) was normal. A combination of rifampin (10 mg/kg/d), isoniazid (4.4 mg/kg/d), pyrazinamide (25 mg/kg/d) and ethambutol (20 mg/kg/d) was initiated. Two months later, as the control MRI was strictly stable, the collections were drained, but quickly reconstituted. At that time, drained pus remained sterile in culture. The patients declared a good observance, and drug monitoring showed rifampin, isoniazid, pyrazinamide and ethambutol plasmatic levels within the therapeutic targets. After

Figure 1 Historical Pott's diseases presenting as voluminous clinical left paravertebral tumefactions (A, arrows), with T1-weighted vertebral MRI with gadolinium (B to D) disclosing a T11–T12 osteomyelitis with voluminous corporeal (asterisk), prevertebral (arrow), spinal epidural (arrow head), retrovertebral (lozenge) and left psoas (cross) abscesses. One-year after treatment completion, a contrast-enhanced CT scan (E) showed an osteolytic cavity with tissue content bridging T11–T12 vertebral bodies.

Learning points

- ▶ Pott's disease is a classical but rare presentation of extrapulmonary tuberculosis.
- ▶ Insidious evolution can lead to the formation of voluminous paravertebral abscess.
- ▶ In the absence of neurological defect, surgical or radiological drainage is inefficient, and medical management alone is sufficient, although clinical and radiological recoveries may be differed.

6 months of therapy, CRP finally turned negative and patient's weight began to rise. Treatment was simplified to a combination of rifampin and isoniazid. After remaining strictly stable for 7 months, perispinal collections quickly collapsed, until disappearing at the 9-month control MRI. Antimicrobial therapy was continued for a total duration of 12 months. On treatment discontinuation, the patient was doing well, with a body weight at 82 kg. In a 1-year follow-up after treatment stop, no clinical or radiological sign of relapse was noted, while a CT scan displayed nearly fused T11–T12 vertebral bodies with a central, osteolytic cavity and without posterior wall recession (figure 1E).

Pott's disease is a classical but rare presentation of tuberculosis, accounting for about 5% of total extrapulmonary localisation.¹ It can develop insidiously, leading to the formation of voluminous cold paravertebral abscesses, characterised by low inflammatory symptoms and low-grade pain. Surgical or radiological evacuation of cold abscesses is not recommended, as usually ineffective, as confirmed in our patient.^{2 3} Surgical management must consequently be restricted to patients with neurological defect, important spinal instability or failure of medical management. Treatment duration is debated, usually recommended for 6 to 9 months, but can be prolonged in most severe cases such as our patient.¹

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REFERENCES

- 1 Leonard MK, Blumberg HM. Musculoskeletal tuberculosis. *Microbiol Spectr* 2017;5.
- 2 Bhojraj S, Nene A. Lumbar and lumbosacral tuberculous spondylodiscitis in adults. Redefining the indications for surgery. *J Bone Joint Surg Br* 2002;84:530–4.
- 3 Nene A, Bhojraj S. Results of nonsurgical treatment of thoracic spinal tuberculosis in adults. *Spine J* 2005;5:79–84.

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