■ CASE REPORT

Isolated tuberculosis of the coccyx

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Vertebral disease constitutes approximately 50% of all skeletal tuberculosis. We describe a patient who developed a discharging sinus at the tip of the coccyx. Extensive examination revealed isolated tuberculosis of the coccyx. Although rare, the condition should be suspected in patients presenting with a chronic sinus in the sacrococcygeal area and a lytic lesion in the coccyx on CT or MRI, particularly in the developing world.

Musculoskeletal disease accounts for 3% of all cases of tuberculosis.¹ Although 50% of these cases are spinal, only 3% to 7% have lumbosacral involvement and there is only one reported sacrococcygeal lesion.¹⁻³ Isolated coccygeal tuberculosis has not been reported. As uncommon presentations can be a source of delay and error in management, we describe a case of isolated tuberculosis of the coccyx.

Case report

A 42-year-old woman presented with a six-month history of pain, and a discharging sinus in the coccygeal area that had been present for two months. The pain had been gradual in onset and was worse on sitting. She had been treated for coccygodynia without relief and had developed a coccygeal swelling which broke down and discharged serosanguinous fluid. There was no history of trauma, fever, reduced appetite, weight loss, anorectal problems or pulmonary or extrapulmonary tuberculosis. She had received repeated courses of antibiotics at different hospitals, despite negative cultures.

On examination, there was a sinus measuring 3 cm x 4 cm overlying the sacrococcygeal junction. It was non-tender, adherent to bone, with associated granulation and a serosanguinous discharge. The surrounding skin was indurated and unhealthy. Abdominal and rectal examination were normal. There was no significant regional lymphadenopathy or a neurovascular deficit.

She was not anaemic and the erythrocyte sedimentation rate was 50 mm/hr. The Mantoux test¹ and radiographs of the chest and coccyx were normal. On MRI, the T2-weighted images showed an ill-defined, lytic

Fig. 1

The sagittal T2-weighted MR image shows an ill-defined lytic area in the coccyx with hyperintensity in the pre-coccygeal area, suggesting a collection of inflammatory fluid.

area in the coccyx with pre-coccygeal hyperintensity, suggesting a collection of inflammatory fluid (Fig. 1). A closed core biopsy was taken. Histopathology revealed a caseating granuloma with typical tubercular giant cells and a positive stain for acid fast bacilli. Cultures on Lowenstein-Jenson medium (TB Lab, Microbiology Department, All India Institute of Medical Sciences, New Delhi, India) grew *Mycobacterium tuberculosis* at the end of six weeks.

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She was treated with rifampicin, isoniazid, ethambutol and pyrizinamide for four months, followed by two drugs (rifampicin and isoniazid) for 11 months, which is our standard drug regimen. The pain resolved and the sinus healed during the first four months of treatment. She has been asymptomatic for the last two years.

Discussion

Tuberculosis remains one of the most pressing health problems in the developing world and its management may be made more complicated by associated HIV and drug resistance. Spinal tuberculosis has various atypical features which include single vertebral infection,⁴ skip lesions, neural arch involvement and atypical sacral lesions.⁵ It usually follows haematogenous spread from the lung or genitourinary tract,⁶ with the paravertebral venous plexus of Batson being the likely primary pathway for dissemination of the bacilli to the vertebral column.⁶ It is also possible that lymphatic drainage of the pleura or kidney may involve the para-aortic lymph nodes, which may secondarily involve the spine.⁷

Isolated sacral tuberculosis usually presents as chronic back pain in adults and discharging sinuses or abscess for-

mation in children, with or without neurological deficit.⁵ The single reported case of sacrococcygeal tuberculosis presented as an anal fistula.³ Our patient with isolated involvement of the coccyx is probably the first described in the literature. Although rare, tuberculosis should be suspected in patients presenting with a chronic sinus in the sacrococcygeal area, particularly in the developing world.

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