

Isolated Sacrococcygeal Tuberculosis, A Case Report Of A Rare Atypical Presentation

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Abstract— Tuberculosis is a major health problem in India and in view of rise in the MDR tuberculosis atypical presentations are getting commoner these days and are difficult to diagnose. Musculoskeletal tuberculosis is very common among the hematogenous spread cases of pulmonary tuberculosis involving thoracic spine the most. Involvement of sacrum and coccyx is rarest of the possibility and isolated sacrococcygeal tuberculosis thus is very rare. Being a rare entity a high index of clinical suspicion is required to diagnose it. We hereby report a very rare case report of sacrococcygeal tuberculosis.

Index Terms—Sacrococcygeal; Spine; Tuberculosis.

I. INTRODUCTION

Tuberculosis is a major health problem of developing nations. Pulmonary tuberculosis is the most common site and hematogenous spread has been considered most common type of spread to extrapulmonary sites¹. Musculoskeletal system being among the 10% of the extrapulmonary sites of tuberculosis², spine accounts for 50% among skeletal tuberculosis cases³. Although spine involvement is so high still lumbosacral region involvement is just 2-3%³. And in the literature most cases of sacral tuberculosis are due to direct spread from lumbar spine⁴. To the best of our knowledge very few cases of isolated sacrococcygeal tuberculosis have been described in the literature globally.

II. CASE REPORT

A 23year old female presented to us with low back pain and radiation of pain to right gluteal region since 3months. She complained of slight swelling in right gluteal region. There was no H/O fever, cough, malaise or weight loss. On examination swelling in right gluteal region with mild local rise of temperature in right gluteal region was noted. Hip range of movement was within normal limits. There was no distal neurological deficits and power in bilateral lower limb muscles was 5/5. Perianal and perineal sensations were intact and there was no bladder or bowel involvement.

X-rays of lumbosacral spine showed osseous destruction of sacrococcygeal segment and anterior inverted angulation of coccyx(Figure 1,2). A suspicion of osteomyelitis was there

so MR scan was done which showed hyperintense signals on T2/STIR s/o marrow edema with minimal adjacent soft tissue suggestive of Infective (osteomyelitis) or tuberculosis (Figure 3,4,5).

On laboratory investigations, Hb was 10.1g/dl, TLC was 11600, Erythrocyte sedimentation rate (ESR) was 90mm/1hour and C-Reactive protein (CRP) was 60mg/L. Mantoux test was positive with an induration of 15×15 mm. CT guided biopsy was done which revealed fragments of lamellated bony trabeculae with intervening fibrocollagenous tissue showing well formed caseating epithelioid cell granulomas with langhan's giant cells and mononuclear inflammatory infiltrate (Figure 6,7). No evidence of any malignancy was observed. ZN staining revealed no acid fast bacilli. So these finding were consistence of bony destruction due to tuberculosis.

Treatment was started anti-tuberculous four drug regimen for initial intensive phase of three months. Improvement of symptoms i.e. pain in the back and gluteal region was prompt within one month of therapy, Monthly assessment of inflammatory markers (ESR, CRP) was done.

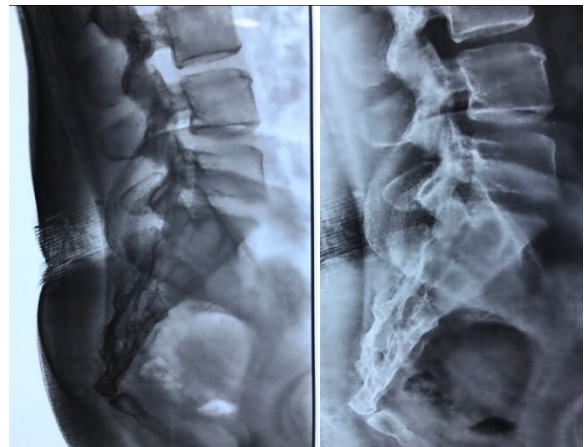


Figure 1 and 2: Xray showing sacrococcygeal osteolysis and anterior inverted coccyx.

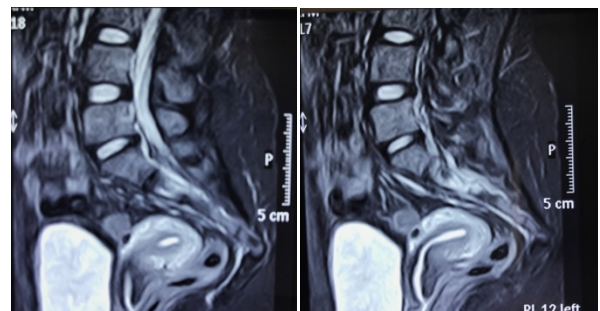


Figure 3 and 4: MRI scan showing hyperintense signals on T2/STIR s/o marrow edema with minimal adjacent soft tissue suggestive of osteomyelitis/tuberculosis

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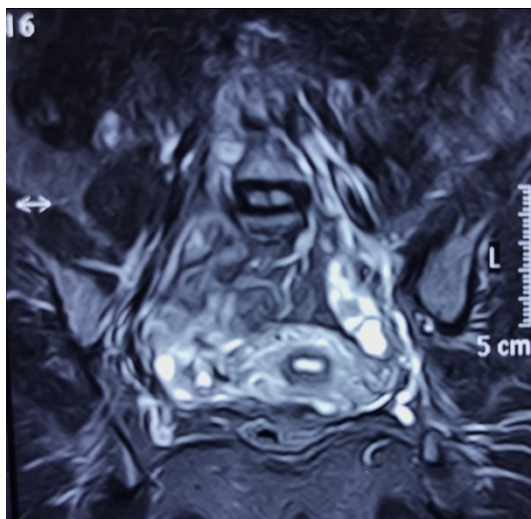


Figure 5: MRI scan showing hyperintense signals on T2/STIR s/o marrow edema with minimal adjacent soft tissue suggestive of osteomyelitis/tuberculosis

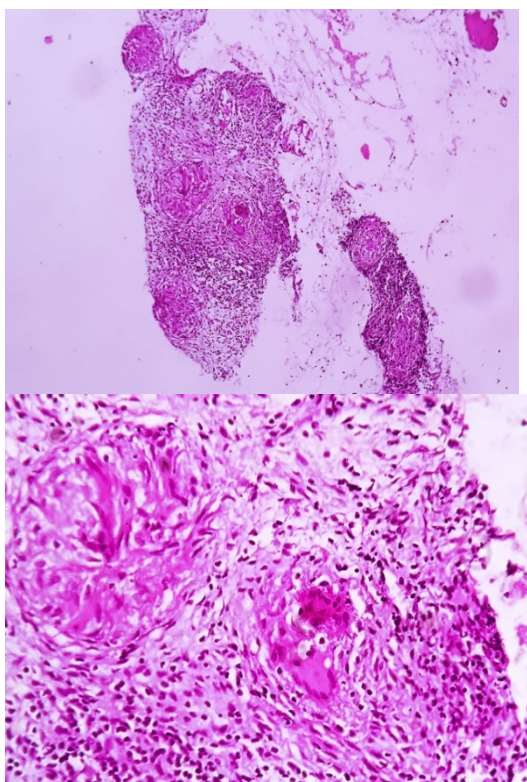


Figure 6 and 7: Histopathology from CT guided biopsy showing caseating epithelioid cell granuloma.

III. DISCUSSION

First case of sacral tuberculosis was described by Campbell in 1917 and was not an isolated sacral tuberculosis, it was a skip lesion involving both lumbar and sacral spine⁴. Spinal tuberculosis usually has a haematogenous spread through the paravertebral venous Batson plexus from lung or genitourinary tract⁵. A rise in the AIDS and immunodeficiency has led to an increase in the number of MDR and atypical tuberculosis⁶. Very few isolated sacral tuberculosis has been reported in literature, so being a rare entity a high index of suspicion and

detailed history taking is required for diagnosing such cases. Most of the cases are treated with absolute bed rest and analgesics for long time before being diagnosed as tuberculosis. Delay in diagnosis of such cases will lead to progression of the disease and complications like Cauda-conus syndrome associated to sacral tuberculosis has also been reported in Indian population⁷.

Such cases may be associated with abscess or anal fistula⁸ so thorough clinical examination and whole spine screening MRI with gluteal and thigh MR cuts may be required. High suspicion of skip lesions should be there in any sacral tuberculosis case. Coccygeal involvement is very rare and to the best of our knowledge no case of coccygeal tuberculosis has been described in literature and in our case edema was noted around coccyx and anterior invert coccyx was seen.

Bone tuberculosis require a treatment of minimum 12 to 18 months for complete healing and a shorter duration may lead to recurrence of infection.

IV. CONCLUSION

Sacral tuberculosis is a rare entity and has a high chance of delayed diagnosis leading to progression of disease. Neurodeficits are uncommon but may be seen and in any gluteal and low back pain case investigations should include visualisation of sacrococcyx and though rare but a diagnosis of isolated sacrococcygeal tuberculosis should be kept in mind.

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