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Tuberculosis of Lumbosacral Spine: Infrequent Site of Involvement in Spinal Tuberculosis

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Abstract
Spinal tuberculosis usually involves dorsolumbar regions. Involvement of lumbosacral region is rare with few reported cases in literature. The patient with lumbosacral spinal tuberculosis may presents with low back pain with or without neurological deficits. Conservative management is primary mode of therapy; surgical intervention is required in selected group of patients.
Keywords: *Lumbosacral tuberculosis, spinal tuberculosis, skeletal tuberculosis.*

Introduction

India constitute about one fifth of total Tuberculosis cases in the world. Out of total cases of Tuberculosis 3% are skeletal Tuberculosis, More than 50% of musculoskeletal tuberculosis cases belong to spinal tuberculosis involving mainly the dorsolumbar region[1-7]. Involvement of Lumbosacral spine is very rare. Very few cases have been reported till now[4,8-13]. In this article we report an uncommon case of lumbosacral Tuberculosis admitted to our institute that was managed successfully and discharged.

Case Report

A 25- year- old lady who presented with complaints of back pain for 6 months, which increased in severity over one and half months which was associated with low grade fever. There was history of weight loss, malaise, headache and decrease appetite. The Back pain was of moderate intensity which used to aggravate by exertion, pain was radiating to both lower limb with tingling .On Examination, there was mild pallor and localized tenderness present over lumbosacral spine. Higher mental functions and cranial nerves were intact. Motor examination was normal in both upper limbs. Straight leg raising test (SLR) was positive in both lower limbs (at 30 degree). Nutrition and tone were normal in both lower limbs. Power was grade 4/5 at hip joint, knee joint and ankle joint in both lower limbs. Knee reflex was normal and ankle reflex was absent in both

lower limbs. Plantar reflexes were absent in both lower limb. Sensory examination showed decreased pain and temperature sensation in L5-S1 distribution in both lower limbs. Blood investigations revealed Hb:8.6 mg/dl, TLC:7000/mm3, Platelet count:1.7 lac/mm3 and increased ESR(60mm/hour). Kidney and liver functions test were within normal limits. Blood sugar was normal. HIV test was negative. Chest xray was within normal limits. X-Ray of Lumbosacral spine revealed reduced intervertebral disc space between L5 and S1.

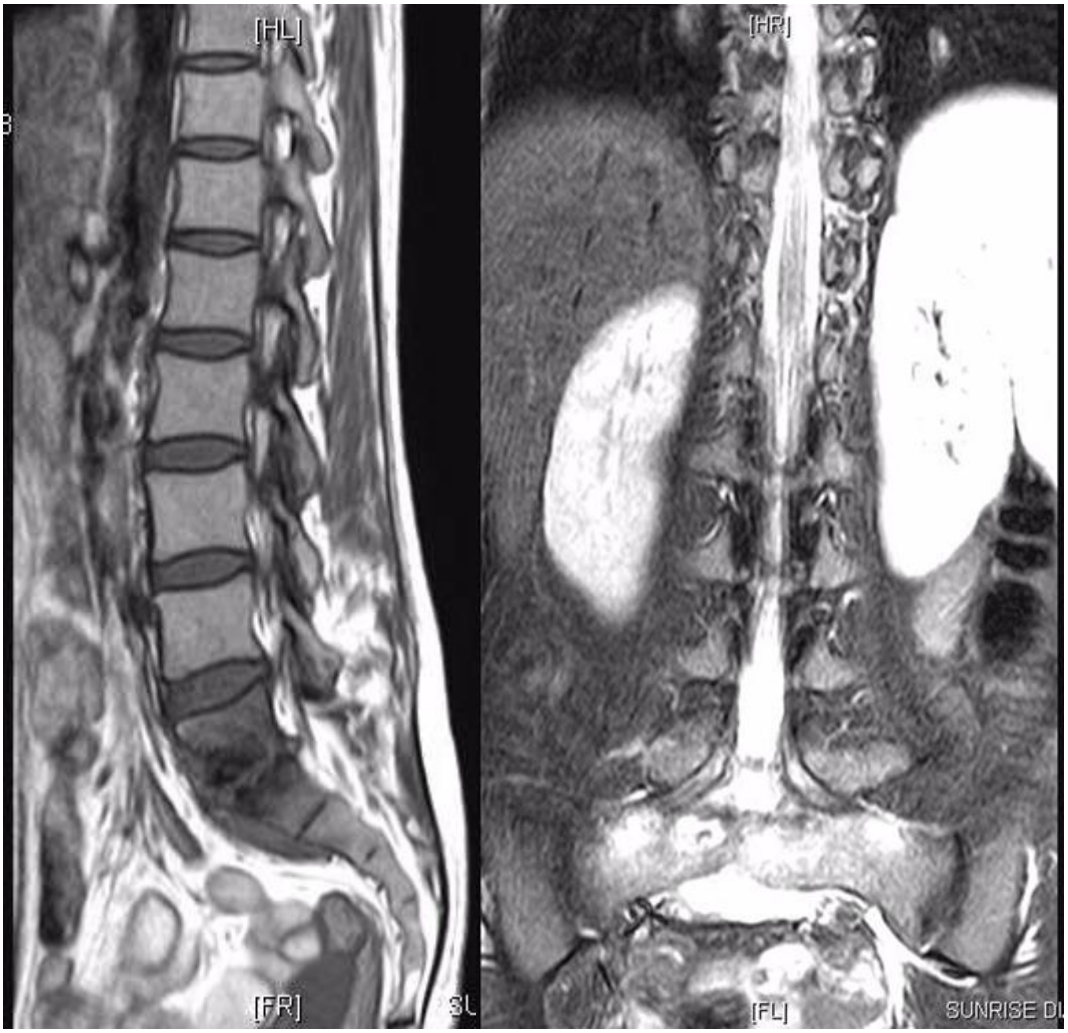

Figure 1: MRI of lumbosacral spine spine T1-weighted saggital image showing disc dessication along with disc destruction at level of L5-S1. Also noted are hypointense signal changes in L5 and S1 vertebral body predominately in paradiscal region. Similar changes can be seen on coronal section

MRI Study of Lumbosacral spine suggested central, subperiosteal and paradiscal type of pott's spine with focus at L5 & S1 and changes of diskitis [Figure 1].

On the basis of history, examination, laboratory and radiological investigations diagnosis of Pott's Spine (L5 & S1) was made. The patient was started on Antitubercular therapy with corticosteroids. At follow up the patient improved markedly in motor and sensory deficit and pain improved significantly.

Discussion

Lumbosacral tuberculosis presents as low back pain with or without signs of neurological compression (altered sensations in the lower limbs, motor weakness with or without bowel and bladder dysfunction)[14-18]. Physiologically lumbar

lordosis prevents anterior disease to cause kyphosis and much extensive destruction of vertebrae is required to produce kyphosis[12,14]. X-Ray of lumbosacral spine shows decreased intervertebral disc space, decreased vertebral height, erosions and in distinction of end plates. However for early detection of tuberculosis lesions, plain radiographs are relatively insensitive[20,21]; Hence in these cases MRI is superior as it shows better pathological details and also demonstrates spinal canal compromise[19,22-24]. Histopathological diagnosis is not required in all cases of lumbosacral tuberculosis[25,26]. In cases where diagnosis is doubtful, CT guided fine needlebiopsy[12,24] can be performed. Conservative management with adequate course of ATT (Isoniazid, Rifampicin, Ethambutol, Pyrazinamide) with corticosteroids usaually results in positive outcome[14,25,27-33]. When there is persistent pain with conservative management and compression of neural structures, surgical intervention(decompression with or without fixation)is recommended in combination of ATT[12-14].

Conclusion

Lumbosacral involvement in tuberculosis is infrequent. The patient may present with low back pain with or without neurological deficits. Conservative management is the primary treatment modality with the outcome. Surgical intervention is required in selected patients with lumbosacral spine tuberculosis[8,12,14].

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