



Vertebral Osteomyelitis due to Salmonella Paratyphi A

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Fig. 1: A lateral radiograph of the lumbar spine shows subtle osteolysis involving the inferior endplate of the L5 vertebral body posteriorly (arrow) with mild anterolisthesis of L5 over S1.

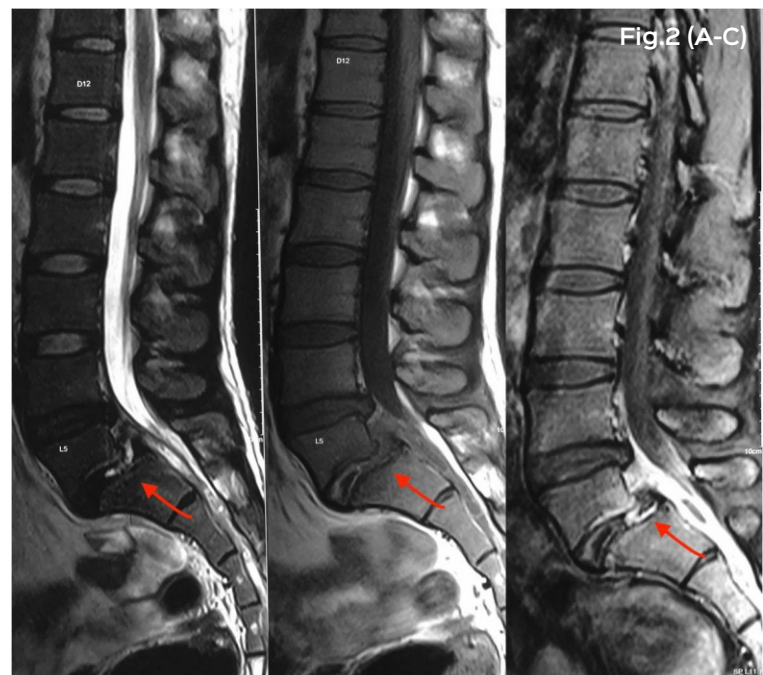


Fig. 2 (A-C): Sagittal T2W (A), T1W (B) and contrast-enhanced T1W (C) MRI images of the spine show edema of the inferior endplate of the L5 vertebral body and the superior endplate of the S1 body with involvement of the intervening intervertebral disc, with a small peripherally enhancing collection/ abscess.

In India, tuberculosis is the most common cause of spinal infections. Hence many patients with spinal infection are put on empirical anti-tuberculous treatment (AKT) without confirmation of the diagnosis, which is detrimental to the patient.

Here we report a case of a 26-years male immunocompetent patient who presented with history of fever, back pain and loss of weight for 2 months. The lumbar spine radiograph (Fig. 1) showed subtle osteolysis involving the inferior endplate of the L5 vertebral body posteriorly. An MRI (Fig. 2) showed spondylodiscitis at the L5/S1 level with a collection in the disc and peridiscal region. A presumptive diagnosis of tuberculous infection was made and empirical AKT was started.



At a glance:

- Not all spinal infections are due to tuberculosis and other organisms like Salmonella, E.coli and Staphylococcus aureus are also known to infect the disc and end-plates
- The diagnosis largely depends on the isolation of the

organism by microscopic and culture methods.

- A CT guided biopsy is required in a large number of patients not only to confirm the diagnosis and rule out other possibilities but also to obtain material for culture and sensitivity tests.

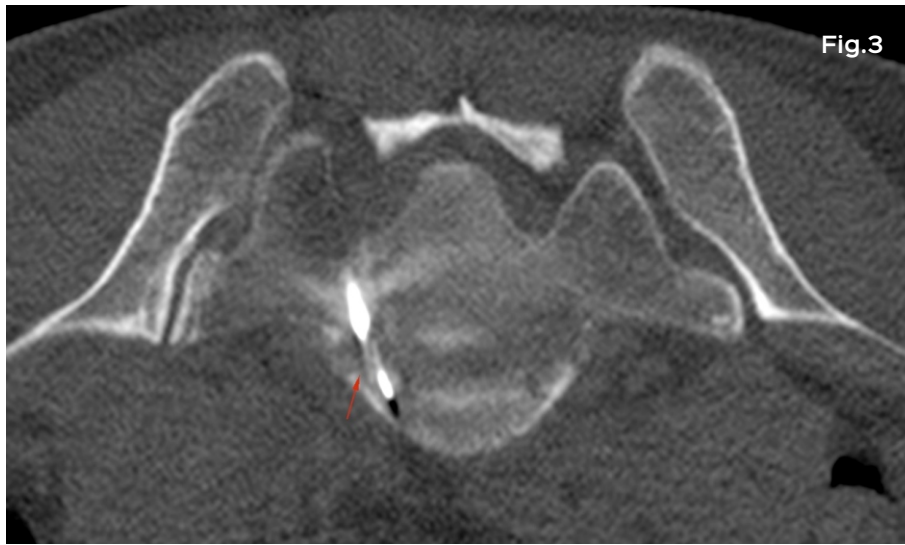


Fig. 3: A CT guided biopsy of the L5/S1 disc lesion was performed from the left, using a transpedicular approach through S1.

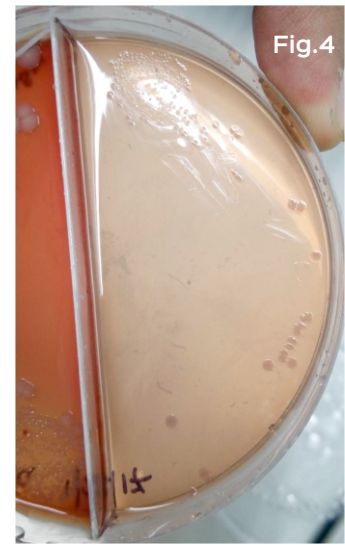


Fig. 4: Mac Conkey agar shows non lactose fermenting colonies which on further testing were confirmed to be Salmonella paratyphi A.

After a month of AKT the patient did not improve and hence a CT guided core biopsy (Fig. 3) was performed. The histopathology showed non-granulomatous inflammation and the culture report (Fig. 4) came positive for Salmonella paratyphi A. After starting specific antibiotics as per the sensitivity report, the patient improved significantly and is symptom free now.

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