

Case report

Tuberculosis of Spine Presenting as an Abscess Communicating with the Spinal Canal. an Unusual Manifestation

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Tuberculosis of spine is still very common in our country. The spinal involvement consists of a destructive bony lesion involving the center of a vertebral body, anterior margin of the vertebral body or the vertebral end plate with loss of disc space. There may be an associated paraspinal mass due to abscess formation but the communication of this abscess with spinal canal is rare and this abscess may tract to the skin surface with a sinus tract.

Key words. Spinal tuberculosis, unusual manifestation, involvement of spinal canal

The present case is of a young man aged 24 years who had an injury to his back five months ago and later developed a tender swelling on the back, which started discharging through a sinus opening. This was diagnosed as an abscess and incision and drainage was done by the surgeon. The swelling reappeared 2 weeks later and again started discharging. At this stage the patient came to Mayo Hospital Lahore where he was investigated. The blood picture showed ESR of 32. Montoux was 15mm, Lymphos were 55%, Polys were 40%.

Plain X-ray of Dorsolumbar spine showed loss of bone density of D₁₂ with some thinning of end plates of D₁₂ and L₁ with loss of intervertebral disc space. In view of a discharging sinus a sinogram was done which showed an irregular sinus tract extending from the skin surface and communicating with the spinal canal at D₁₂ - L₁ level. To further evaluate the extent of the fistula a CT scan of spine at D₁₂-L₁ level was carried out and axial scans showed that the contrast injected through the sinus opening entered the spinal canal from left lateral aspect but not communicating with the sub arachnoid space. CT scan also showed destruction of D₁₂-L₁ with loss of disc space and an associated soft tissue paraspinal mass which was an abscess. The appearances are those of a Chronic inflammatory lesion which is most likely tuberculous.



Fig.1. Plain xray lateral view of thoracolumbar spine shows disc space narrowing in the T₁₂-L₁ region.

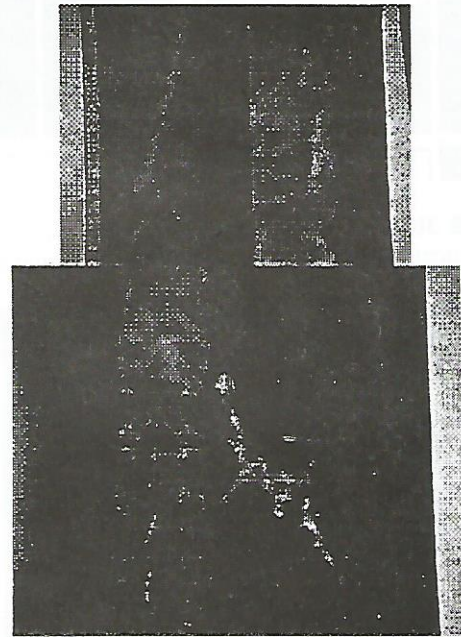


Fig 2. Sinogram showing an irregular tract communicating with the spinal canal.

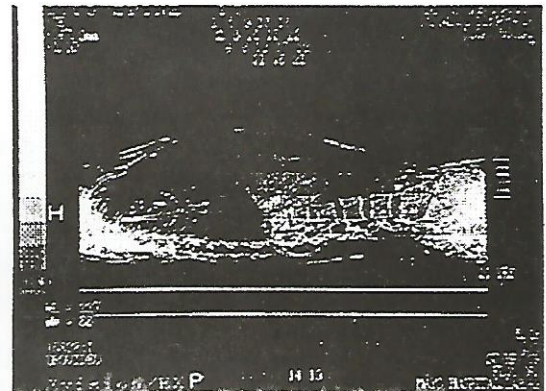


Fig 3a

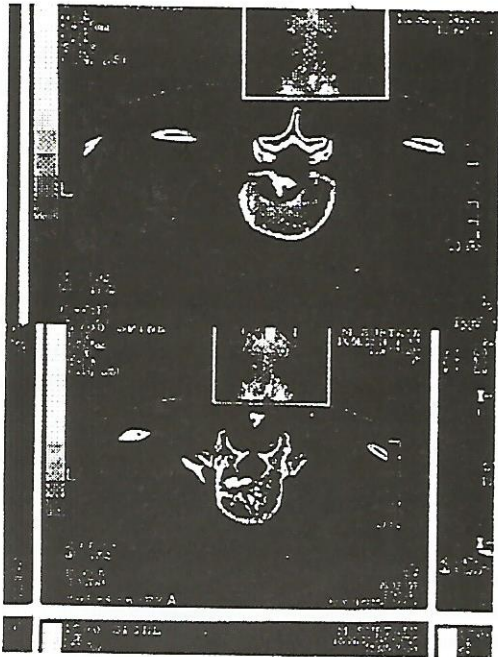


Fig 3b.
 Fig 3a & 3b: CT findings consistent with the communication of the sinus tract with the spinal canal.

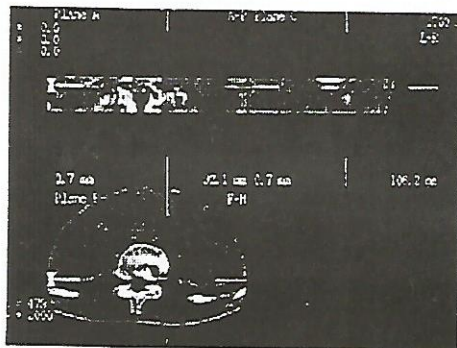


Fig 4. Three D reconstruction.

Discussion

Tuberculosis of the spine is still quite common throughout the world. In 15% of cases the involvement occurs in sites other than the lung. Spinal tuberculosis is usually the result of hematogenous spread but can occur as direct extension from the lungs or subarachnoid space in cases of tuberculous meningitis. The most common site of involvement is the lower thoracic and upper lumbar spine. The granulomatous process usually begins in the anterior third of the vertebral bodies and tends to spread above and below the vertebral column, beneath the paraspinal ligaments. In untreated or chronic cases, paraspinal, paravertebral, and psoas abscesses frequently occur. The intervertebral space remains relatively intact longer in tuberculosis than in pyogenic infections. Plain radiographs are very useful to demonstrate bone and joint involvement, which may be similar to pyogenic infections. Radio-nuclide bone and gallium scanning becomes useful for demonstrating the site of involvement in the early stage. CT has been the most sensitive procedure for demonstrating spinal and extraspinal tuberculosis; however, the findings are nonspecific because they are similar to those of other osteomyelitic processes. The enhanced CT scans demonstrate edge or ring enhancement of the paraspinal abscesses that are more commonly seen in tuberculosis. Occasionally the resolving process may demonstrate calcifications, which are seen in the paraspinal soft tissues. And rarely fistula formation externally may occur but communication with the spinal canal is rare as in our case.

References

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