Spinal Tuberculosis : A Villain In The Generation Of Artificial Intelligence.

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Learning objectives: Tuberculosis is re-emerging globally, more so in the immunocompromised population.[1] Early recognition of the disease is, therefore, most important and has become possible due to advanced imaging technologies

Background: Tuberculosis of spine.a most clinically important extrapulmonary and musculoskeletal form of TB,results in residual spinal deformity and/or permanent neurological deficit. Commonest in the thoracolumbar junction, the primary focus of infection can be the vertebral body or the posterior elements.

Findings and Procedure details: A lesion adjacent to the intervertebral disk causing its narrowing is paradiscal type (most common). MR imaging shows low signal on T1W and high signal on T2W in the endplate, narrowing of the disk, and large paraspinal/epidural abscesses. A subperiosteal lesion under the anterior longitudinal ligament results in spreading of pus over multiple vertebral segments, stripping the periosteum and anterior longitudinal ligament. MR imaging shows the subligamentous abscess involving multiple segments and sparing of discs. The central lesion spares disc and is centered in the vertebral body and cause collapse giving rise to vertebra plana ,(indistinguishable from lymphoma or metastasis). Tuberculous in the posterior elements is rare and shows evidence of bone erosion and the associated abscess.[2]

Conclusion: Early diagnosis is enabled by MRI imaging prompting earlier management and avoiding complications.

References:

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2. Moorthy S, Prabhu N.K. Spectrum of MR Imaging Findings in Spinal Tuberculosis. AJR 2002: 179;979-983.