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Tuberculous spondylodiscitis Diagnostic pitfalls

Spondylodiscitis has increased in frequency, mainly among young individuals, and it may be caused by pyogenic infections, tuberculosis, brucellosis, mycosis, and sarcoidosis.[1–5] Paraspinal abscesses are sometimes associated with the skeletal lesions, predominantly those due to pyogenic microorganisms, but are also observed in infections due to *Mycobacterium tuberculosis*.[1–5] In addition to the involvement by contiguity, the infective route may be arterial or venous; older patients with deficits in vascularity have less likelihood of spreading of vertebral infection to the discs.[1] Tuberculous ("cold") abscesses often develop without intense pain or inflammatory signs.[1] Late diagnosis and challenging management may be a result of an initial low index of suspicion and dependence on specialized diagnostic procedures of high cost.[1–5] Magnetic resonance imaging (MRI) and contrast tomography (CT) studies are useful tools; reduced vertebral height can be seen, with irregularity of the anterosuperior endplates, but misdiagnosis of tuberculosis may occur in the early stages, due to the sparing of disc spaces.[1]

A recent study described a middle-aged man with a diagnosis of spondylodiscitis associated with a paraspinal abscess in the right lumbar region; the CT images and the microbiological studies were consistent with *M. tuberculosis* etiology.[1] The authors described the classical characteristics of tuberculous spondylodiscitis, which occurs in almost half of musculoskeletal tuberculosis cases, affecting the lower thoracic and upper lumbar levels, and can cause pain, lower limb weakness, paraplegia, and kyphosis.[1] They also commented on the typical alterations associated with tuberculous spondylodiscitis, such as subligamentous extension with irregularity of the anterior vertebral margins, large paraspinal collections, ivory and plana vertebrae, and the gibbus deformity.[1]

In a review of 343 cases of spondylodiscitis, 44.6% were pyogenic, 40.2% were due to brucellosis and 15.2% were tuberculous; 281 MRIs, 71 CTs, and 17 scintigraphies were performed to establish the diagnoses.[3] Involvement of three or more segments, and paraspinal abscess were significantly associated with the tuberculous etiology of spondylodiscitis, while more accentuated involvement of the discs was significantly indicative of brucellosis or pyogenic etiology.[3] The authors commented on the frequent finding of culture negativity, and the necessity for invasive methods to identify the causal agent of the changes in skeletal and soft tissues shown by imaging.[3] They also highlighted the impact of the increasing older population, and of the numbers of patients on dialysis or immunosuppressive treatment on the growing number of cases of extrapulmonary tuberculosis in recent years.[3]

Brazilian authors commented on two cases of spondylodiscitis caused by *Escherichia coli* and *Staphylococcus aureus*, and an iliopsoas abscess caused by *Streptococcus sanguis*, emphasizing the differential diagnosis between spinal and paraspinal abscesses, and the challenging similarities between tuberculous abscesses and those of pyogenic etiology.[2,4,5] They pointed out that MRI data are useful to identify bone destruction with disc preservation and heterogeneous enhancement in tuberculosis, or discal and bone destruction and homogeneous enhancement in pyogenic lesions.[4] Iliopsoas abscess may show an image with gas and contrast enhancement of the rim, and may cause fever and pain in the back and lower extremities.[5]

Key words

Paraspinal abscess
Pyogenic
Spondylodiscitis
Tuberculosis

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The articles described here may enhance the suspicion index of primary health care workers, and help them with elucidating the diagnostic challenges of spondylodiscitis and paraspinal abscesses.

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ΠΕΡΙΛΗΨΗ

Φυματιώδης σπονδυλοδισκίτιδα: διαγνωστικές παγίδες

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