Letter to the Editor

TUBERCULOUS SPONDYLITIS AND PYOGENIC SPONDYLITIS

Espondilite tuberculosa e espondilite piogênica

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RESUMO

Este manuscrito visa aumentar o índice de suspeição de cuidadores de saúde primários sobre os possíveis desafios envolvidos no diagnóstico diferencial de abscessos espinhais e para espinhais. Alguns estudos realizados em países de baixa, média e alta renda são comentados, incluindo a possibilidade de semelhanças clínicas e de imagem entre esse tipo de abscessos por *Mycobacterium tuberculosis* e por agentes patogênicos Gram-positivos ou Gram-negativos. As imagens de ressonância magnética são ferramentas valiosas para estabelecer a melhor conduta, mas o diagnóstico definitivo depende da caracterização exata do agente causal em todos os casos.

Palavras-chaves: infecção piogênica; espondilite; tuberculose

ABSTRACT

This manuscript aims to enhance the suspicion index of primary health care works about potential challenges involved in the differential diagnosis of spinal and para spinal abscesses. Some studies done in countries from low-, medium- and high-income are commented, including the possibility of clinical and imaging similarities between this kind of abscesses by *Mycobacterium tuberculosis* and by Gram-positive or Gram-negative pathogens. Images of magnetic resonance are valuable tools for establishing the best management, but the definite diagnosis depends upon the exact characterization of the causal agent in all cases.

Keywords: pyogenic infections; spondylitis; tuberculosis

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To the Editor,

Considering the high prevalence of infections by *Mycobacterium tuberculosis*, the commentaries herein addressed could attract the attention of the readers of this Journal about practical features of tuberculous spondylitis in countries of different income classifications.

Chang MC *et al*. compared the imaging findings of 33 Taiwanese patients with pyogenic spondylitis (PS) and 33 patients with tuberculous spondylitis (TS), with average ages of 66 and 65 years, respectively.[1] The main distinctive features included the pattern of bone destruction with relative disc preservation and heterogeneous enhancement for TS, and the discal and peridiscal bone destruction, in addition to homogeneous enhancement for PS. Magnetic resonance parameters contributed to the differential diagnosis of these conditions.[1]

In this setting, comments are added about the MR findings in two Brazilian patients with PS caused by *Escherichia coli* and *Staphylococcus aureus*.[2,3] An 81 year old woman had left lumbar pain, and the MRI revealed a heterogeneous mass involving the L5 vertebral body with pathological fracture; the pedicles and left transverse processes of L4 and L5; the left sacral wing, and the left iliac bone.[2] The infection also involved the adjacent soft tissues, the spinal canal at the L5 level; additionally, there was evidence of compression on the dural sac and nerve roots.[2] Iliopsoas abscess associated with spondylodiscitis by *S. aureus* was described in a 64-year-old man. On Day 2 of admission, a MR of lumbar and sacral spine showed spondylodiscitis in L4-L5 associated with epidural fluid collection in the paraspinal soft tissues, and left iliopsoas abscess; moreover, the local extension of the inflammatory process was characterized by meningeal impregnation with contrast.[3] With the cultures and antibiograms of blood and cerebrospinal fluid revealing sensitivity to vancomycin, this antimicrobial agent was successfully utilized for nine weeks.[3]

Italian authors reported a 13-year-old boy with confirmed diagnosis of cord compression due to a tubercular abscess, which developed in the thoracic, lumbar and sacral spinal regions, in spite of his neonatal BCG vaccination, and the anti-tuberculosis treatment with three drugs.[4] MR images showed destruction of vertebral bodies and spinal cord compressed by abscess. They highlighted the negative blood cultures, serology panel, and polymerase chain reaction to discard bacterial and viral agents; as well as the positive results of tuberculin skin test and QuantiFERON-TB assay, in addition to *Mycobacterium tuberculosis* in pus of the abscess.[4] Moreover, the role of immediate

surgical decompression of spinal cord by laminectomy and abscess drainage aiming to prevent development of irreversible sequels was emphasized.[4] The authors concluded that

one must consider the hypothesis of active tuberculosis in patients with consistent findings of spinal compression, and provide the rapid surgical procedure.[4]

Both in the Gram-positive or Gram-negative infections, the Brazilian findings were similar to those described in the manuscripts from Taiwan and Italy herein commented.[1-4] Therefore, the establishment of definite diagnosis sometimes constitutes a challenging task. Although MR images are very useful diagnostic tools, the microbiological cultures are more often mandatory to confirm the etiology of spondylitis and of the adjacent necrotic process.

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