Images in Clinical Tropical Medicine

Pleural Involvement in Spinal Tuberculosis

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Abstract. Spinal tuberculosis or Pott's disease of the spine associated with pleural involvement has long intrigued researchers regarding the nature and pathogenesis of their occurrence. We describe two interesting patients of spinal tuberculosis, one with cervical and another with thoracic spine disease, with pleural involvement, which developed after lateral extension of cold abscess involving the parietal pleura, and without any evidence of pulmonary disease.

We present two interesting patients with tuberculous lesions of two different parts of the spine in whom magnetic resonance imaging revealed unusual pleural involvement. In both cases, the diagnosis of tuberculosis was confirmed by demonstration of *Mycobacterium tuberculosis* in the paraspinal collection aspirated under computed tomography guidance. Figure 1 shows involvement of the sixth and seventh cervical vertebrae with the first thoracic vertebra in a 27-year-old lady with abscess tracking into the pre-vertebral space and involving the pleura on the right side. Figure 2 shows diffuse left-sided pleural involvement in a 35-year-old man with tuberculosis of the ninth, tenth, and eleventh thoracic vertebrae.

Spinal tuberculosis or Pott's disease of the spine associated with pleural involvement has for long intrigued the researchers regarding the nature and pathogenesis of their occurrence.¹ Pleural effusion secondary to large extra-pleural extension of

FIGURE 1. (A) Sagittal T2-weighted short tau inversion recovery image showing involvement of the sixth and seventh cervical and first thoracic vertebrae with abscess in the pre-vertebral space (arrow). Compression over the corresponding segments of the spinal cord is also evident. (B) Coronal T2-weighted short tau inversion recovery image showing circumferential involvement of the pleura (arrow heads) and prominent horizontal fissure (arrow) with a large paravertebral abscess (asterisk).

FIGURE 2. (A) Sagittal T2-weighted short tau inversion recovery image showing involvement of ninth, tenth, and eleventh thoracic vertebrae with abscess in the pre-vertebral space (arrow). Compression over the corresponding segments of the spinal cord is also evident. (B) Coronal T2-weighted short tau inversion recovery image showing circumferential involvement of the pleura (arrow heads) and prominent horizontal fissure (arrow) with paravertebral abscess (asterisk). Short tau inversion recovery sequence is a sensitive technique for fluid, whether within soft tissue or bone, around joints, or along tendon sheaths (including soft tissue and marrow edema).

paravertebral abscess has been described in a series published in 1955. The author suggested that pleural involvement occurred either before or after the development of the spinal lesion, but rarely without pulmonary disease or without operative interventions.² Our two patients represent a rare occurrence of pleural involvement, which developed concomitantly with lateral extension of cold abscess involving the parietal pleura but without any evidence of pulmonary disease.

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