Bilateral flank pain and epigastralgia in a young man with pulmonary tuberculosis

A 28-year old, previously healthy man presented with bilateral flank pain and epigastralgia for 10 days, which increased in severity and frequency progressively. The pain was located on the level just above the umbilicus and was not related to respiration, active movements or food intake. Chest radiography revealed infiltrates over bilateral upper lobes (Figure 1). Pulmonary tuberculosis (TB) was highly suspected. However, three sets of sputum acid fast stain were negative. For further evaluation of lung lesions, chest computed tomography (CT) (Figure 2) unexpectedly showed osteolytic lesions on the ninth vertebral body. Magnetic resonance imaging (MRI) of the spine demonstrated increased signal within the same vertebrae with focal inferior endplate erosion and abscess formation over the right inferior corner of the vertebral body, indicating spondylodiscitis (Figure 3A and B). Nerve root compression was highly suspected. Surgical procedures including laminectomy, discectomy and bone grafting were performed. The pain resolved gradually after the operation. Histopathologic examination revealed acid bacilli in the specimen, so antituberculous drugs were administered. Later, the culture of sputum and spinal tissue yielded *Mycobacterium tuberculosis*.

Spinal TB can develop in isolation or in combination with pulmonary TB. Back pain is the most common symptom of spinal TB\(^1\)–\(^3\) but may be absent in the early stage when the destruction of vertebral body is subtle, just like this patient. Radicular pain could be the only presentation and tends to be mistaken as myofascial pain, peptic

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**Figure 1.** Chest radiography revealing infiltrates over bilateral upper lobes.  
**Figure 2.** CT showing an osteolytic lesion on the 9th vertebral body (arrow).
ulcer disease, biliary colic or pancreatitis if the disease is confined to the lower thoracic spine. Thus, we should raise the suspicion of TB spine if a patient co-exists with upper lung lesions and back pain or radicular pain.

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References


Figure 3. MRI of thoracic spine. (A) Sagittal T1-weighted fast spine echo image showed increased signal within T9 vertebral body with focal inferior endplate erosion (arrow). (B) Axial T1-weighted post-contrast image showed abscess formation over right inferior corner of T9 vertebral body (arrowheads). All these findings were compatible with spondylodiscitis.