Diagnostic Images

A paraspinal shadow

Presented by Louis Kreel

Department of Diagnostic Radiology and Organ Imaging, Faculty of Medicine, The Chinese University of Hong Kong, Prince of Wales Hospital, Shatin, N.T., Hong Kong.

The patient

A male aged 37 with mild mental retardation complained of poor mobility for 4 months. On examination, he had a spastic paraparesis.

Comments

There are many causes of localized displacement of the paraspinal line, including spinal disease, lymphadenopathy, descending aortic aneurysm, traumatic haematoma, even extramedullary haemopoiesis and oesophageal varices. However, in association with intervertebral disc space narrowing, tuberculous and pyogenic osteomyelitis must be excluded. Bone metastases rarely narrow the intervertebral disc space and the same can be said for trauma and lymphoma. The lamellar pleural reactions and blunting of the costophrenic angles could certainly also be due to tuberculosis. The CT appearances indicate relatively minor bone changes but marked surrounding soft tissue swelling in keeping with the plain film findings.

Tuberculosis was subsequently proven on biopsy.

Figure 1 Chest radiograph with blunting of both costophrenic angles and bilateral pleural reactions along the lateral thoracic margins (small arrows). In addition there is a bulge of the lateral paraspinal line (large arrow).

Figure 2 Thoracic spine film shows narrowing of the intervertebral disc space at T_{7/8} (arrows) and the associated bulge of the paraspinal lines indicating a surrounding soft tissue component.

Figure 3 (a) On the frontal view of the myelogram, there is an almost complete block above the level of T₁₀ with slight lateral compression of the contrast column. (b) The lateral view shows definite extradural compression of the theca on the posterior aspect and a 'broken sticks' appearance of the contrast column at the site of obstruction.

Figure 4 A CT section at the level of T₇ clearly demonstrates the soft tissue mass surrounding the vertebrae as well as lytic lesions within the vertebrae body.