Atypical presentation of spine bone metastasis in prostate cancer mimicking Pott’s disease

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Summary

A 55-year-old man was hospitalized for a low back pain lasting for 3 months. Spinal MRI revealed a suggestive aspect of multilevel discitis L5-S1-S2 with paravertebral abscess. A thoraco-abdominal CT scan confirmed the presence of multiple pathological lymph nodes in several locations: cervical, mediastinal, retroperitoneal, inguinal, bilateral micronodular pulmonary infiltrate; it also showed mirror bone erosions of vertebral L5 and S1 endplates, suggestive of disseminated tuberculosis with lung involvement and lymphadenopathy (Figure 2). The bacteriological samples (blood cultures, urine culture, sputum culture, bronchoalveolar lavage fluid) remained all negative at the direct examination and after a prolonged culture on Lowenstein medium. A disco-vertebral biopsy was performed confirming the diagnosis of metastatic prostatic adenocarcinoma including a tumor infiltration of the intervertebral disc, without arguments for a septic processus superimposed without tuberculosis granuloma. Although rare, cases of metastases located at the disco-vertebral junction including prostatic cancer have already been described, and should be known to the clinician. The differential diagnosis with an infectious spondylodiscitis can be difficult in some case around the vertebral disc and in case of epiduritis and soft tissues involvement on MRI sequences. Disco-vertebral biopsy remains the cornerstone of the diagnosis.

KEY WORDS: spondylodiscitis; tuberculosis; metastasis; prostate cancer.

A 55-year-old man was hospitalized for a low back pain lasting for 3 months and impaired general condition associated with a productive cough after returning from a long trip to Eastern Europe. Biological tests revealed an inflammatory syndrome with a C reactive protein (CRP) being at 110 mg/l. Spinal MRI revealed a suggestive aspect of multilevel discitis L5-S1-S2 with paravertebral abscess (Figure 1). A thoraco-abdominal CT scan confirmed the presence of multiple pathological lymph nodes in several locations: cervical, mediastinal, retroperitoneal, inguinal, bilateral micronodular pulmonary infiltrate; it also showed mirror bone erosions of vertebral L5 and S1 endplates, suggestive of disseminated tuberculosis with lung involvement and lymphadenopathy (Figure 2). The bacteriological samples (blood cultures, urine culture, sputum culture, bronchoalveolar lavage fluid) remained all negative at the direct examination and after a prolonged culture on Lowenstein medium. A disco-vertebral biopsy was performed confirming the diagnosis of metastatic prostatic adenocarcinoma including a tumor infiltration of the intervertebral disc, without arguments for a septic processus superimposed without tuberculosis granuloma. There was a huge increase of PSA (Prostate Specific Anti-

Figure 1 - MRI of the lumbar spine, sagittal view, T1-weighted sequence (A), T2 STIR (B), T1 after gadolinium injection (C) showing inflammation, enhancement L5-S1 and S1-S2 disc, bone oedema vertebral, lumbar vertebral erosion L5-S1 and voluminous anterior epidural mass abscess-like spondylodiscitis.
gen) at 6170 ng/ml. The clinico-biological evolution was favorable after hormone therapy (Degarelix then Abiracetone and Prednisone) and vertebral radiotherapy (PSA at 35 ng/ml, decrease in pain and recovery of professional activity).

In this case, the presentation was very suggestive of a disseminated tuberculosis. Spinal MRI showed a large mass extending to the para-vertebral soft tissue and an inflammatory signal in the vertebral disc next to the lumbosacral junction reflecting inflammatory process associated with adjacent osteolysis endplates best seen in the CT scan highly suggestive of a sepsis despite the absence of a “typical” mirror images and the heterogeneous enhancement after gadolinium injection. Although rare, cases of metastases located at the disco-vertebral junction including prostatic cancer have already been described (1, 2), and should be known to the clinician. The differential diagnosis with an infectious spondylosis can be difficult in some case around the vertebral disc and in case of epiduritis and soft tissues involvement on MRI sequences (3). Disco-vertebral biopsy remains the cornerstone of the diagnosis (4).

Conflicts of interests

The Authors declare that they have no conflicts of interest related to this article.

References