Lipid-Poor Vertebral Hemangioma mimicking a vertebral metastasis of cervical carcinoma

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Clinical image description

A 49-year-old woman has a microinvasive cervical cancer classified as figo 1A, treated by conization. On loco-regional MRI, a nodular lesion of the vertebral body of L3 was found. It appeared hypointense on T1-weighted images, slightly intense on T2-weighted images not suppressed by STIR, and enhanced after injection of gadolinium, suggesting a secondary bony location (figure 1). Secondary localization in microinvasive stages of cervical cancer being exceptional, confirmation of the metastatic nature led to the performance of a CT scan that showed an osteolytic lesion with marginal sclerosis with a salt-and-pepper appearance consistent with a hemangioma, and on scintigraphy, there was no fixation anomaly pleading for the benignity of the lesion (figure 2).

Vertebral haemangiomas are the most common benign vertebral neoplasms; his incidence is about 10% at autopsy (1). They are usually asymptomatic and incidentally detected due to their characteristic features.

Vertebral hemangiomas are classified into typical and atypical forms, according to their composition in lipid, blood and oedema on histology. Typical vertebral hemangiomas appear as T1, T2 hypersignal and suppressed on STIR due to their high lipid content. On CT scan, an osteolytic lesion with marginal sclerosis, containing punctuations with a salt-and-pepper appearance, is seen. On the scintigraphy, no fixation abnormality is found. Atypical forms can pose a problem of differential diagnosis with malignant or metastatic lesions. A distinction is made between aggressive forms that rupture the bone cortices and extend to adjacent tissues, and lipid-poor forms that are T1 isosignal, T2 hypersignal, not suppressed in STIR because of the small lipid contingent, and that enhance after gadolinium injection (2). These forms, although less frequent, must be recognised because they pose a problem of differential diagnosis with secondary bone localisations. The use of other imaging modalities, in particular the CT scan, allows the diagnosis to be rectified.

Declaration of interests

The authors declare that they have no conflicts of interest

References:

