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Paget's disease in association with undifferentiated nasopharyngeal carcinoma

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KEYWORDS

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Abstract *Introduction:* In the case of an undifferentiated nasopharyngeal carcinoma coexisting with asymptomatic Paget's disease it may be difficult to determine the stage. A case of a clinically localized nasopharyngeal carcinoma coexisting with incidental Paget's disease is reported herein.
Case report: A 51-year-old woman was admitted who presented a permanent left nasal obstruction, combined with ipsilateral epistaxis. She was diagnosed as having a nasopharyngeal carcinoma. The bone scan showed widespread homogenous increased remodelling throughout the skeleton. Radiographs showed an increase in bone density and cortical thickening. Magnetic resonance imaging (MRI) of the right leg excluded bone metastases. We concluded that this was a localized nasopharyngeal carcinoma associated with asymptomatic Paget's disease of the bone. The patient showed a good response to concomitant radio chemotherapy.
Discussion: In imaging, the skeletal lesions of both nasopharyngeal cancer and Paget's disease may closely resemble each other. No biological markers of bone resorption or formation can differentiate

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between the two entities. We used three radiological explorations to make the diagnosis. However we believe, after reviewing the literature, that fluorodeoxyglucose positron emission tomography (FDG PET) can be helpful in this situation.

1. Introduction

Paget's disease of bone, also known as osteitis deformans, is a common disorder due to excessive and abnormal remodelling of bone. The disease may affect virtually every bone in the skeleton. Diagnosis is usually based upon clinical features, imaging, and laboratory analyses.[1]

Both malignant and benign tumours may be found in association with Paget's disease. There are a few case reports describing the coexistence of Paget's disease and bone metastatic carcinoma.[2–5]

A nasopharyngeal carcinoma with asymptomatic Paget's disease may be difficult to determine the stage. We report on a case of a clinically localized undifferentiated nasopharyngeal carcinoma coexisting with incidental bone Paget's disease.

2. Case report

A 51-year-old, postmenopausal woman with a history of cardiac arrhythmia had complained of a 6-month history of permanent left nasal obstruction, epistaxis and left ear fullness associated with an ipsilateral headache and a generally weak condition. No bone pain or pathological fractures were reported by the patient. The nasal endoscopy showed a tumour of the left lateral wall of the nasopharynx towards the posterior choanae. A 3-cm-neck node was palpated in left region II. The neurological examination was normal. Computed tomography (CT) and MRI detected a tumour at the left posterolateral wall of the nasopharynx reaching the ipsilateral choanae. The nasopharyngeal biopsy revealed an undifferentiated carcinoma (UCNT). The tumour was classified as aT2 N1 according to the UICC-AJCC system (2002). Diagnostic investigations including chest X-ray and liver ultrasonography did not reveal any metastases. However, the bone scintigraphy showed widespread homogenous increased uptake over the skull, sterno-clavicular line, right clavicle, first lumbar vertebra, right ankle and the ipsilateral greater trochanter of the femur. An intense and diffuse uptake was noted at the right iliac bone and at the left sacroiliac joint (Fig. 1). The features were suggestive of a diffuse sclerotic bone disorder. The differential diagnosis at the time included Paget's disease of the bone and bony metastases. X-rays subsequently obtained showed an increase in bone density and cortical thickening especially in the right iliac bone (Fig. 2). A

Figure 2 Anterioposterior radiograph of the pelvis shows diffuse sclerosis in the right iliac bone with trabecular and cortical thickening.

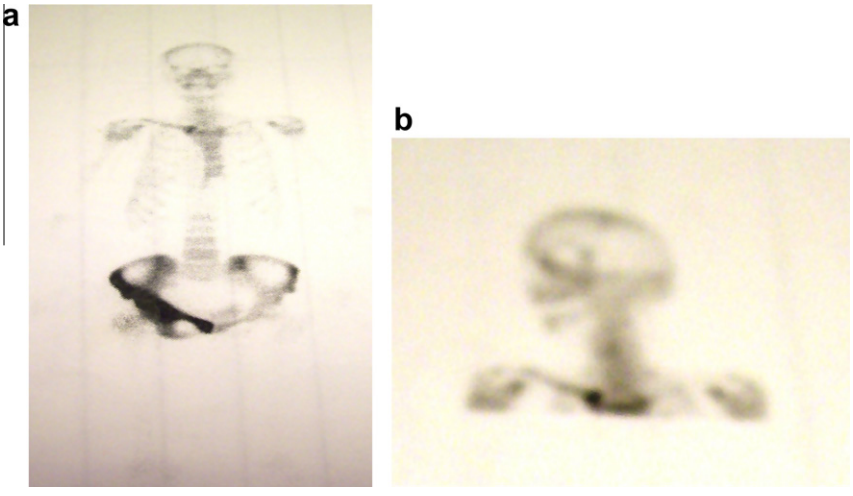

Figure 1 (A) Anterior technicium-99 m-MCP bone scan show increased uptake over the sterno-clavicular line, the great trochanter of the right femur, the ipsilateral iliac bone and the left sacroiliac joint. (B) Anterior 99mTc-MCP bone scan show a high activity in the sterno-clavicular line and the right clavicle.