Hilar tuberculosis in a patient with osteosarcoma

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Summary

A case of hilar tuberculosis in a patient with osteosarcoma is described illustrating the importance of accurate diagnosis in this unusual association. This occurrence is discussed in the light of the use of potentially immunosuppressive treatments for osteosarcoma.

Introduction

Pulmonary metastases are the commonest sites of distant metastases in osteosarcoma. Although cytotoxic chemotherapy after primary surgical treatment of limb osteosarcoma is used widely in an attempt to eradicate micro-metastases, hopes of cure once clinically evident metastases are present are limited. However, long survivals have been reported following resection of pulmonary metastases (Huang, Takita and Douglass, 1978). In cases when thoracotomies have been done for the removal of metastatic disease in patients with a variety of primary neoplasms, non-malignant conditions masquerading as pulmonary metastases have been found (Cahan, Shah and Castro, 1978).

Case report

A 16-year-old male presented in March 1979 with a 3-month history of pain in the right knee region. Examination showed swelling around the right adductor tubercle, and radiographs and subsequent bone biopsy indicated osteosarcoma for which a mid-thigh amputation was done. Three weeks after amputation the patient was referred to hospital for assessment for cytotoxic chemotherapy but it was apparent that abnormal enlargement of the left hilar region was present on chest X-ray (Fig. 1). The abnormal left hilar mass was confirmed by tomography and subsequent CT scanning of the chest. He received one course of chemotherapy with adriamycin and methotrexate in combination and subsequently had a thoracotomy with removal of the left hilar node mass and, although the post-operative period was complicated by a left lower lobe collapse and effusion, he made a good recovery. Pathological examination of the excised nodes revealed tuberculous lymphadenitis with caseation granuloma and no evidence of metastatic osteo-

sarcoma. He received one year's treatment with adjuvant cytotoxic chemotherapy in the form of adriamycin and methotrexate given at monthly intervals, and the adriamycin was stopped after a total safe cumulative dose had been given. He also received anti-tuberculous chemotherapy with ethambutol, isoniazid and rifampicin. He is now (January 1981) in excess of 21 months after diagnosis and primary treatment and is well, with no evidence of recurrence of osteosarcoma and is in treatment.

Discussion

Although tuberculosis should be considered as a cause of hilar enlargement, it was not possible to make an accurate pre-thoracotomy diagnosis in this case. Furthermore, there were no clues in the history or physical examination as to the presence of tuberculosis. In the presence of a concomitant osteosarcoma, metastatic disease would have appeared likely, although lung parenchymal and not hilar metastases are the usual mode of presentation of metastatic disease in this condition (Martini *et al.*, 1971). This unusual association between hilar tuberculosis and osteosarcoma illustrates the importance of thoracotomy as a treatment option in patients who have potentially removable intrathoracic mass lesions in osteosarcoma.

Not only can this procedure in association with chemotherapy be worthwhile as a treatment for metastatic osteosarcoma (Huang *et al.*, 1978; Beattie, Martini and Rosen, 1975), but it is important, as this case illustrates, to exclude non-malignant and treatable conditions. Tuberculosis of mediastinal lymphadenopathy has been noted to simulate metastatic malignant disease (Liu, Fields and Shaw, 1978) and, in a study of mediastinal tuberculosis (Bloomberg and Dow, 1980), a high index of suspicion is urged to diagnose atypical cases. The present case gives added impetus to this statement. In particular the possibility of the administration of potentially immunosuppressive cytotoxic chemotherapy in the presence of undiagnosed active tuberculosis will be avoided.

FIG. 1. Smooth lobulated enlargement of the left hilum consistent with hilar glandular enlargement. No other abnormality was shown on conventional whole lung tomography.

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