INTRACORTICAL HAEMANGIOMA SIMULATING OSTEOID OSTEOMA

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A case of intracortical haemangioma in the tibial diaphysis is reported. The radiological and macroscopic features were identical with osteoid osteoma. In view of this similarity, haemangiomas, despite their rarity at this site, must be considered in the differential diagnosis of osteoid osteoma.

Vascular tumours, with the exception of haemangiomas, are relatively rare in bone. Cases of haemangiomas in the vertebral bodies and in the skull occur fairly frequently but are unusual in other bones (Jaffe 1958; Sherman and Wilner 1961; Dahlin 1967; Dorfman, Steiner and Jaffe 1971; Unni et al. 1971; Schajowicz, Ackerman and Sissons 1972). Of twenty-seven cases of haemangioma studied at the Hospital for Joint Disease, New York, in forty years, only one case showed an intracortical location in the tibial diaphysis (Dorfman et al. 1971). The patient was a woman aged fifty-three years who complained of having had pain for eight months before admission. Radiographs showed a small lytic lesion surrounded by an area of evident sclerosis of the tibial diaphysis, identical to an osteoid osteoma (the “circumscribed osteoblastoma” of Schajowicz and Lemos 1970) suggesting also the gross features that support this diagnosis. In three other cases, two of which were reported by Loxley, Thiemeyer and Ellsasser (1972) and the other by Sugiura (1975), under the description “periosteal haemangioma”, the lesion was extra-osseous and subperiosteal, originating as a shallow cup-shaped depression in the cortex with marked local sclerosis of the underlying bone.

In view of the extreme rarity of this location, we want to report a case of intracortical haemangioma and

Figure 1—Anteroposterior radiograph of the tibia showing a circumscribed small osteolytic intracortical lesion (arrow) surrounded by an extensive zone of sclerotic bone, simulating an osteoid osteoma. Figure 2—Photograph of the resected specimen showing the size (in centimetres) and the haemorrhagic appearance of the lesion.

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to emphasise that this tumour has to be taken into consideration in the differential diagnosis of osteoid osteoma.

CASE REPORT

A woman fifty-four years of age attended in April 1970 because of pain over several years and the appearance of a slowly increasing swelling at the posterosomedical site of the right tibia. At that time the pain was moderate and controlled with aspirin. At clinical examination, a circumscribed swelling of 8×4×2 centimetres in size at the posteromedial surface of the right tibia could be palpated. The anteroposterior radiographs (Fig. 1) showed a small osteolytic lesion in the cortex surrounded by an extensive zone of sclerotic bone, due to periosteal new bone formation. Laboratory findings were normal.

A resection of the thickened sclerosed bone was performed. The excised segment, 6 centimetres in length, included part of the underlying spongiosa and the osteolytic zone.

A longitudinal section of the gross specimen (Fig. 2) showed the size, haemorrhagic appearance and intracortical location of the central zone, which gave the impression of a typical nidus of an osteoid osteoma, surrounded by an extensive area of sclerotic bone. The microscopic study (Fig. 3) showed a net of newly formed, and generally dilated, capillary vessels filled with red cells, surrounded by a wide area of reactive bone formation.

The patient is well and without disease five years after the operation.

DISCUSSION

Intracortical haemangioma seems to be extremely rare and we have found only one well-documented case of such a tumour located in the tibial diaphysis, with the radiological and macroscopic features of osteoid osteoma, and it was reported by Dorfman et al. (1971). Their case and ours, with almost identical characteristics, show that different processes of cortical or subperiosteal origin may produce radiographic features very similar to those of osteoid osteoma; for example, cortical abscess, periosteal haemangioma (Loxley et al. 1972; Sugiuara 1975) or, as in the present case, intracortical haemangioma. In any of these lesions, resection of the reactive sclerotic area, including the nidus, is indicated and results in the cure of the lesion.

REFERENCES