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Hemangioma of the ulna simulating an osteoid osteoma

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ABSTRACT

The bone hemangioma is arare intraosseous benign vascular tumor. It primarily affects the vertebrae and skull;the lesion of the ulna is very rare. We report a rare case of hemangioma of the ulna initially diagnosed as osteoid osteoma. The aim of this study is to emphasize a diagnostic trap.

Introduction

The bone hemangioma is a rarebenign tumor, its most often affect the vertebrae. This hemangioma usually has no symptoms and is diagnosed through radiography. The location at the long bones is exceptional. The diagnosis is based on clinical and imaging, it is confirmed by histology. This case illustrates a rare localization of this tumor, which can be considered as a differential diagnosis of osteoid osteoma.

Case Report

A 24-year-old woman presented with a 7 month history of insidious onset of an isolated left forearm mass, located dorsally at the junction of middle and distal third of the forearm. The mass was painful, and slowly enlarging. She denied any history of trauma, fever, chills, weight loss, or fatigue. Physical examination revealed a 10 ×10 mm, painful and firm mass over the ulnar aspect of the distal one-third of the left forearm. It was superficial and easily palpable. The neurovascular status of the left hand was noted to be intact, and Tinel's sign over the mass was negative. The radiography of the left forearm was objectified a cortical osteocondensation of the lower third of the ulna with a periosteal reaction (figure1).CTscann of the forearm had objectified cortical thickening of the outer edge of the bottom quarter of the ulna containing a clear image of 6 × 9 mm (figure2). Bone scintigraphy showed a hearth of hyperfixation (figure3). Faced with this clinical and radiological information, the diagnosis of an osteoid osteoma of the ulna was retained. Excision of the tumor has been achieved. Histological examination was in favor of a hemangioma. One year after excision there is a complete disappearance of pain without radiological recurrence.

Discussion

Intraosseous hemangioma is a rare bone tumor accounting for 0.7% to 1.0% of all bone tumors. It can occur at all ages but is most common in the fourth and fifth decades of life and has a female preponderance. Intraosseous hemangiomas are usually found in the vertebral column and rarely seen in the long bones[1, 2]. Histologically, haemangioma can be classified as cavernous, capillary, venous or mixed, depending on the type of vascular involvement. Cavernous haemangioma is the most common type of intra-osseous haemangioma arising from extremity bone and constitutes 50% of all reported cases. They are typically located at the medullary and intracortical portions of the bone. Pure capillary haemangioma constitutes 10% of all the types reported in the literature. Venous haemangioma has been rarely reported in extremity bone [3, 4, 5].

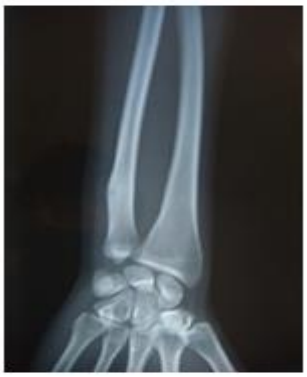

Figure 1: The radiograph of the left forearm was objectified a cortical osteocondensation of the lower third of the ulna with a periosteal reaction

Figure 2: CT of the forearm had objectified cortical thickening of the outer edge of the bottom quarter of the ulna containing a clear image of 6 × 9 mm

Clinically, contrary to the vertebral involvement where the lesion is often silent and fortuitously discovered (85-95%), hemangioma of the extremities is symptomatic and manifested

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by swelling and pain. More rarely, it is discovered during a pathological fracture [6, 7].The sub periosteal hemangioma appears on plain radiographs by an erosion of the superficial surface of the cortical,it may associates a perilesional osteocondensation and periosteal reaction. The intracortical hemangioma appears as a lytic cortical nidus surrounded by osteocondensation orlimited cortical lysis without associated sclerosis. The intramedullary hemangioma appears as a medullary lacuna sometimes associated with endocortical notch. The CTscannconfirms the exact location of the lesion (medulla, intracortical or sub periosteal). It shows cortical osteolysis sometimes surrounded by an osteocondensation reaction. It can reveal the existence of intralesional calcifications [8, 9].All authors confirm that it is very rare tosuggest the diagnosis preoperatively solely on clinical and radiological findings when the hemangioma affects the members due to the rarity and variability of clinical and radiological tables in this entity to this level[7].

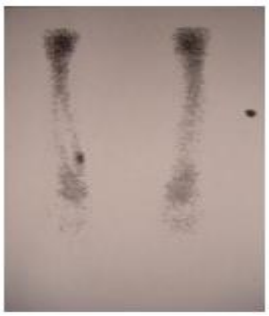

Figure 3: Bone scintigraphy showed a hearth of hyperfixation

Although special treatment is not required for asymptomatic and small tumours, surgical treatment such as curettage or complete surgical resection and bone grafting is indicated for symptomatic ones[5]. The prognosis of hemangioma operated is different depending on the histological type, but generally the prognosis is excellent. Indeed, the risk of recurrence is low and degeneracy in an angiosarcoma is exceptional. The evolution in our patient was favorable without recurrence [10, 11]

Conclusion

Bone hemangiomas are benign and infrequent lesions. It can thus be confused with other bone tumors. Therefore, the diagnosis is frequently made in the operative field by its hemorrhagic features and confirmed by histologic examination. The treatment of choice is surgical resection with an adequate normal bone margin.

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