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Abstract

Benign or Malignant: A Case Report of Multifocal Epithelioid Hemangioma of Fibula

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Abstract

Case Presentations: A 63-year-old female with no significant prior trauma and relevant past medical history presented with a 2-month history of severe, persistent, gradually worsening, sharp and non-radiating pain over her left distal fibula. Physical examination revealed extreme tenderness to palpation over the lateral distal fibula. There was soft tissue prominence over the mid to lower third of the fibula.

Results: Left lower leg radiographs depicted two ill-defined osteolytic destructive lesions measuring 29 and 37 mm in length in the fibular diaphysis. A pathologic fracture was present through the distal lesion. A laboratory test, including serum protein electrophoresis, alkaline phosphatase and basic metabolic profile, was ordered to evaluate for multiple myeloma. CT scans of the chest and abdomen were obtained to evaluate for primary malignancy or any evidence of metastatic disease. The results of these tests were unremarkable. Image-guided biopsy of the lesions was performed and revealed epithelioid hemangioma (EH). The patient was initially managed with a walker boot. At the 2-month follow-up, an additional third smaller lesion was detected along with an interval increase in size of the two previously seen lesions. The patient proceed with preoperative embolization followed by surgical curettage and open reduction and internal fixation. Angiogram was done and tumor feeding artery was identified but tumor embolization was unsuccessful. The patient underwent fibular bone lesion curettage, PRO-DENSE bone grafting and open reduction and internal fixation with the left fibular diaphyseal plate. Radiographs revealed continued healing with bone graft incorporation at 1.5-, 3- and 7-month follow-ups. The patient was permitted to return to all activities without restriction 1.5 months after the surgery.

Conclusions: EH is an uncommon, slow-growing vascular tumor that generally presents on the skin and the subcutaneous soft tissues of the head, with osseous EHs being rare. Although osseous EHs can present as multifocal lesions, the majority of bony EHs are solitary and arise in the diaphysis or metaphysis of long tubular bones, with a predilection for the lower extremity. Radiographically, EH may present as well-defined lytic lesions with sclerotic margins or mixed lytic and sclerotic lesions. These lesions are often located eccentrically and may demonstrate a disrupted or intact cortex.

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