Author's response to reviews

Title: Solid variant of aneurysmal bone cyst of the heel; a case report

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Restructured abstract:

Introduction: Aneurysmal bone cyst (ABC) is a benign, but often rapidly expanding osteolytic multicystic osseous lesion, that occurs as primary, secondary, intra/extra-osseous, solid or conventional. It frequently coexists with other benign and malignant bone tumors. Although it is considered of reactive nature, there is evidence that some ABCs are true neoplasms. The solid variant of ABC is a rare subtype of ABC, with preponderance of solid to cystic elements. Such a case affecting the heel, an unusual site, is reported.

Case Presentation: A 26-year-old man presented with pain and swelling of his left lower extremity. The plain radiograph demonstrated an intra-osseous, solitary and eccentric mass in the front portion of the left heel. In computerized tomography and magnetic resonance imaging (MRI), the lesion appeared subcortical, solid with a small cystic portion without the characteristic fluid-fluid levels detection but with distinct internal septations. An intralesional excision was performed. Microscopic examination revealed fibrous septa with spindle cell fibroblastic proliferation, capillaries and extensive areas of mature osteoid and reactive woven bone formation, rimmed by osteoblasts. The spindle cells had a low mitotic activity and atypical forms were absent. The histological features were consistent with solid variant of an ABC.

Conclusion: Solid ABCs have been of great interest to pathologists because they may be mistaken for malignant tumors, mainly with giant cell tumor or osteosarcoma, due to cellularity and variable mitotic activity. It is rather obvious that the correlation of clinical, radiological and histological findings is necessary for the differential diagnosis. The eventual diagnosis is based on microscopic evidence and is made when a predominance of solid to cystic elements is found. This case is of great interest due to the nature of the neoplasm and the extremely unusual location that was developed and the pathologists must be alert for such a diagnose.

Competing interests: "The authors declare that they have no competing interests."

Authors contribution: JL: performed the histological examination and wrote the manuscript.
ThG: was a major contributor in writing the manuscript and helped with the figures.
GG: helped with the immunohistochemical study.
ND: performed the surgery and the gap reconstruction.

Consent section: "Written informed consent was obtained from the patient(s) for publication of this manuscript and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal."

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