

Rare presentation of osteochondroma arising from the proximal phalanx

¹Ong, LW; ¹Shams, ASB, ¹Sara, TAY, ¹Jayaletchumi, G, ¹Khoo, SS

¹Hand & Microsurgery Unit, University of Malaya Medical Center

INTRODUCTION:

Hand osteochondromas are uncommon and typically present in children with multiple exostoses disorders. Only a handful of adult cases of these conditions have been described in the literature, much less so in the phalanx (1).

REPORT:

Madam L, a fifty-year-old lady with no known medical illnesses and right-hand dominance, noticed a swelling at her right index finger two years ago and a year ago the swelling started to expand. Examination reveals a lump near the proximal interphalangeal joint of the right index fingers, on the ulnar border, with a size of 1x1 cm. The lesion is immobile in both the longitudinal and horizontal planes, and the overlying skin is pinchable.

Radiographs show a radio-opaque lesion arising from the ulnar border of the proximal phalanx of the right index finger at the level of the epiphyseal-metaphyseal junction. Magnetic Resonance Imaging (MRI) shows areas of lysis within the lesion. Excision biopsy was performed. Histopathology shows fragmented irregular pieces of bony trabeculae, most of which are non-viable with empty lacunae, and minimal intervening bone marrow. Adjacent cartilage tissues show myxoid changes with low cellularity

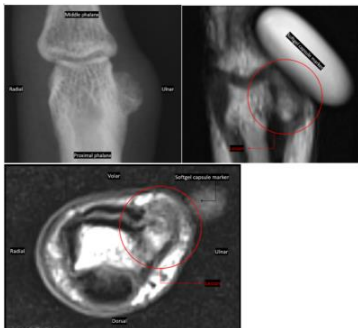


Figure 1: Radiographs and MRI

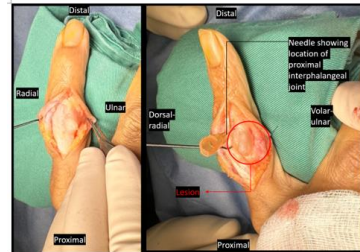


Figure 2: Intraoperative pictures

CONCLUSION:

The lesion is most likely an osteochondroma, with a differential diagnosis of bizarre parosteal osteochondromatous proliferation (BPOP). Osteochondromas typically present as a clearly defined osseous mass united to the underlying bony cortex without communication to the medullary canal (1). The histopathological analysis demonstrates the difference between BPOP and osteochondroma, with BPOP made up of a disorganised combination of cartilage cells, irregular bone trabeculae, and fibrous tissue. The risk of malignant transformation for osteochondroma is low, ranging from 1-4% (2). Early referral to a specialized hand unit for management and biopsy planning is beneficial so that the proximity of significant neurovascular structures is taken into consideration when the definitive excision is performed.

REFERENCES:

1. Sharma LCB, Kapoor K, Verma R, Dash P. A solitary osteochondroma of middle phalanx of the hand in an adult: A case report and differential diagnosis. International Journal of Orthopaedics Sciences. 2018;4.
2. Al-Qattan MM, Al-Marshad F, Al-Shammari J, Rafique A. A giant multi-lobed osteochondroma of the phalanx in an adult: A case report. Int J Surg Case Rep. 2017;31:10-3