



ENCHONDROMA OF THE TOE- A COMMON TUMOUR WITH A RARE LOCATION (A CASE REPORT)

Orthopaedics

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KEYWORDS

INTRODUCTION

Enchondromas are the second most common benign tumours of the bones of the foot after osteochondromas¹, and are the most common tumours in the long bones of the hand². They arise from cartilage nest cells that have fragmented from the central physis during development.

Case Report

A 27 year old female patient presented with complaints of hard lump over the second toe of her right foot for 1 year. She gives a history of trauma 6 months back to her second toe, the size of the swelling increased gradually, pain was dull aching in nature and continuous in type. No history of weight loss and fever.

Local Examination Of Right Foot

Inspection

Spherical shape swelling present at the distal phalanx of second toe, skin appears normal with no discoloration or dilated veins over the swelling. Swelling is continues with the skin.

Palpation

No local rise of temperature. Swelling is firm, non fluctuant and adhered to the underlying bone, margins are invariable and surface of the swelling was irregular.

Tenderness present over the tip of distal phalanx.

Rom: Restricted at PIP and DIP joints.

No DNVD

X-ray of foot AP/Lateral showed a well defined lucent lesion without cortical break and without periosteal bone formation.

CT scan of ankle and foot with 3D reconstruction showed well defined expansile irregular lytic lesion of size 1.4 x 1.3 x 1.2 cm involving the entire distal phalanx of 2nd toe including the articular surface with cortical breakdown in few areas with soft tissue swelling suggestive of Enchondroma / Giant cell tumour.



Fig 1 : Pre-op Clinical Picture

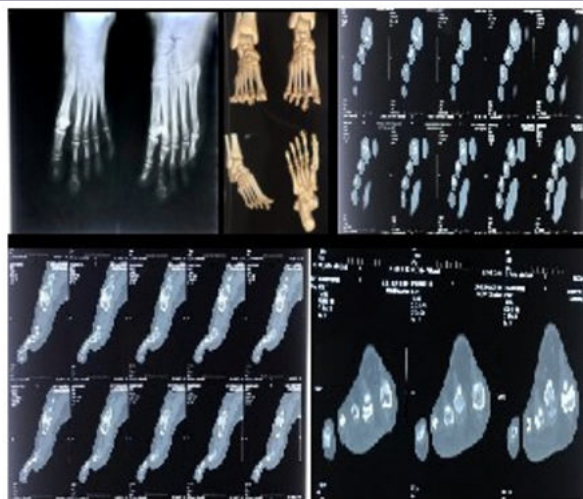


Fig 2 : Pre-op X-ray And Ct Scan

After routine preoperative investigations, patient underwent excision of the tumour under regional block.

Intra operatively, extensor tendons were divided and retracted and distal and middle phalanx were disarticulated and amputated and sent for histopathology which showed lobules of hyaline cartilage encased by the bone and covered by perichondrium with focal area of osteoclasts.

There was no significant multi-nucleation, atypia, or mitotic activity.

Patient is on routine followup.



Fig 3: Intraoperative, Post Operative

Clinical Images And X-rays

DISCUSSION

Enchondromas account for about 10% of all benign osseous tumours². They have a predilection for the small bones of the hand with only 6% of enchondromas developing in the foot³.

They are typically found within the medullary cavity of the bone with 80% of cases within the proximal phalanx¹.

Tang et al.⁴ reviewed the outcomes of surgical curettage without augmentation, curettage with augmentation by bonegraft and curettage by cement injection for the treatment of hand enchondromas and did not recommend curettage due to high rates of non-union (67%), a technique using cement injection into the cavity of the lesion did not appear to improve outcomes.

They reported surgical augmentation with a bonegraft as most appropriate, as it involved a similar recovery time to curettage with the inevitable additional wound that requires healing.

CONCLUSION

We present a case of a symptomatic enchondroma and its surgical management. The tumour was confirmed as an enchondroma based on radiographic and histopathological results.

Close postoperative monitoring was implemented. The patient reported the complete resolution of his symptoms at 6 months that continued until his final review at 12 months postoperatively.

Enchondromas are generally asymptomatic incidental radiographic findings, yet can be symptomatic when there is stress and fracture of the surrounding cortical bone.

Resection of the enchondroma and insertion of an autogenous bone graft can provide excellent and reliable long-term outcomes.

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