Heel of the Matter: Understanding and Managing Calcaneal Giant Cell Tumors

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INTRODUCTION:

The foot is an uncommon location for osseous tumours, comprising 3% of all skeletal tumours of which about one-third reside in the calcaneus [1]. GCT constitutes 1.2% of calcaneal tumours making it a rare entity [2]. A patient with GCT of the calcaneus generally presents in the age group of 30-40 years with heel pain and swelling.

REPORT:

A 39 years old male presented with discomfort and swelling in the right heel upon walking for 5 months. Examination noted the swelling to be tender, hard and bony in origin. Radiographs showed an expansile, lytic lesion of the calcaneus with well-defined margins and no extraosseus spread. All blood parameters are normal. Biopsy done for histopathology demonstrated characteristic multi-nucleated giant cells in a background of mononuclear stromal cells, features suggestive of a GCT.
Patient then was given denosumab twice followed by curatage and cementation.

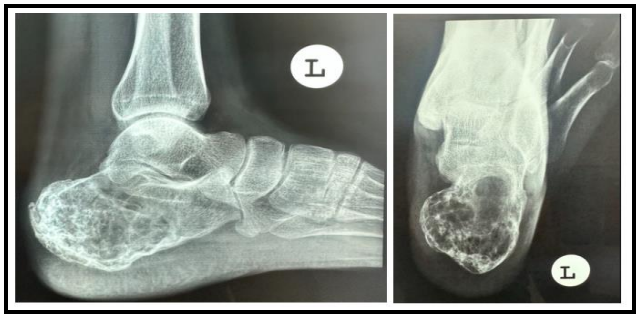

Figure 1: Initial plain radiograph showed lytic lesion of left calcaneum.

Postoperatively, patient was put on bootslab for six weeks followed by gradual weight bearing. After two week wound is well healed . Then patient came follow up quarterly for a year. Two years after patient is ambulating well and no evidence of recurrence.

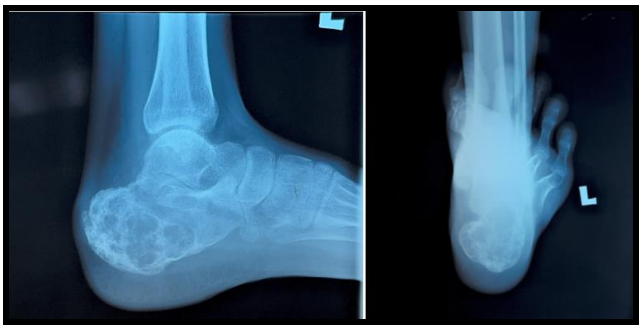

Figure 2: Sclerotic bone post denosumab.

DISCUSSION

Giant cell tumour is a rare, benign aggressive bone tumour with bone destruction and malignant potential. GCT usually found in the epiphysis of long bones, most commonly at the distal femur and proximal tibia. GCT of the calcaneus is a rare entity and presents with pain and swelling in the heel.

CONCLUSION

Denosumab with extended curettage give excellent outcome for GCT .

REFERENCES:

1. Primary tumours of the calcaneus. Yan L, Zong J, Chu J, et al. *Oncol Lett.* 2018;15:8901–8914.
2. Giant cell tumour of foot bones-25 years experience in a tertiary care hospital. Minhas MS, Khan KM, Muzzammil M