

BONE TRANSPORT AS A RECONSTRUCTIVE OPTION FOR PATIENT WITH COMPLICATED GIANT CELL TUMOR OF DISTAL TIBIA: A CASE REPORT

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Introduction: Giant cell tumor (GCT) is a commonest primary benign bone lesion affecting young adult in their second to fourth decade of life. The broad spectrum of its local aggressiveness provide a great post-tumor resection reconstruction challenges to the surgeon.

Discussion: We report a thirty-one years old gentleman, who presented with progressive swelling of left ankle for past 1 year associated with occasional pain. Radiologically noted osteolytic lesion with lack of sclerotic rim located in epiphysis, abutting the articular surface with breakage of cortex concordant with GCT Campanacci 3. Histopathological assessment confirm the diagnosis. Wide resection, allograft reconstruction of left distal tibia and ankle fusion was done. Unfortunately, post-operatively it was complicated with Methicillin-resistance Staphylococcus Aureus (MRSA) surgical site infection. Multiple wound debridement were done and he was treated with IV Vancomycin and oral Rifampicin for six weeks. Ultimately, allograft was removed to control the infection and he was put on LLRS for bone transport. Intraoperatively noted 6cm of bone gap. Bone transport was started 1mm per day distally for two months until docking at talus. Currently almost six months post docking, patient was able to walk independently, but occasionally require walking stick in long distance.

Conclusion: Even though most of GCT has benign characteristic, some may exert local aggressiveness. Even about 4% do metastasis to the lungs and it is correlated with local aggressiveness and local recurrence. As GCT usually occur in juxta-articular area, intralesional curettage and PMMA cementing is an acceptable surgical method to preserve the anatomy and exothermic reaction of PMMA promote tumor necrosis. Wide resection decrease local recurrence and preferred in case where bone salvageability is not eligible with intralesional curettage. Post resection reconstruction option could be bone graft or endoprosthesis. Bone transport can be considered as a salvage procedure which would have otherwise be treated with an amputation.