

## DENOSUMAB IN GIANT CELL TUMOUR OF BONE. PENANG EXPERIENCE.

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**Introduction:** Giant cell tumour of bone (GCTB) is primary bone tumour which is locally aggressive and with high local recurrence of 20-50% despite surgery. En-bloc resection offers lower recurrence yet carries higher morbidity. The case series aimed to report single-center experience on the use of neoadjuvant denosumab combined with intralesional surgery to achieve good outcome.

**Methodology:** This is retrospective case series of patients with GCTB in a single center (Penang General Hospital), underwent preoperative denosumab followed by surgery, with minimum of 12 months follow up. The outcome measures of were local recurrence, perioperative complications and functional status based on Musculoskeletal Tumor Society (MSTS) score.

**Discussion:** Total of six patients (4 males, 2 females) were included in the series. The affected sites were varied among all patients, which included: proximal tibia,2 calcaneum, metatarsal bone, distal radius and distal tibia, respectively Doses of denosumab received ranging from 2 to 7. The patient's mean follow-up duration was 24 months (16-32). Post-operatively, all patient achieved mean total MSTS score of 29.2 /30. One local recurrence was detected - in a patient who presented as pathological fracture on first presentation, subsequently requiring repeated surgery followed by adjuvant denosumab. No other complication was noted.

**Conclusion:** Introduction of neoadjuvant denosumab ease and facilitate intralesional surgery with low recurrence rate. En bloc resection should be considered in the presence of fracture.