

Extended curettage, bone grafting and spanning external fixation for the treatment of giant cell tumor of bone around the knee

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Abstract

Background : Treatment of juxta-articular giant cell tumor of bone around the knee remains a dilemma. Many authors recommend cementing, others grafting after extended curettage and others resect and replace by a modular prosthesis . Biological reconstruction remains the corner stone of our believe in treatment of GCT.

Methods: A retrospective review was conducted of giant cell tumor around the knee treated between 1998 and 2008 using the technique of extended curettage through a large bone window ISP, followed by bone grafting and spanning external fixation. Fifteen patients with a mean follow-up time of 46 months (range, 24–120 months) were identified.

Results: All 15 patients are continuously free of disease and there is no local recurrence. Functional evaluation was performed by ISOLS criteria. The average functional score was 90% (77–100%). None of the patients complained of pain and none of the patients demonstrated serious instability of the knee joint. All the patients showed union starting from 2 months after surgery with full consolidation 6 months after surgery. The fixator was removed at 5-12 months after surgery. Osteoarthritis of the knee joint was not seen in any of our patients. Five patients had interaarticular fracture of the distal femur at presentation, all healed eventually and did not affect the final results. No stress fracture was seen in any of the patients.

Conclusion: Extended curettage,ISP bone grafting and spanning external fixation is a safe and effective procedure for the treatment of juxta articular giant cell tumor of bone around the knee.