

ABSTRACT

Functional outcome of management of Giant Cell Tumor around the knee joint

Aim of the study :To analyse the radiological and functional outcome of surgical management of Giant Cell Tumor around the knee joint.

Introduction: Bone tumors comprise less than 1% of all neoplasms. Giant cell tumor comprises 5-10 % of all primary bone tumors¹. Although Giant cell tumor of bone is generally considered as a benign tumor, it is well known for its locally aggressive behavior and its potential for recurrence and occasionally pulmonary metastasis. It arises mostly from the epiphysio- metaphyseal junction and may extend into the epiphysis. Commonly involved areas are distal femur, proximal tibia, distal radius and proximal humerus. It usually occurs between the second and fourth decades of life and has a slight female predominance. There are various surgical techniques from intra-lesional curettage to wide resection. The goals of treatment are elimination of the tumor, preservation of the limb, and prevention of local recurrence and distant metastasis. This study reviewed the various modalities of treatment for giant cell tumors around the knee joint and discusses the functional outcome and analysis of giant cell tumor around the knee joint.

Materials and Methods: This is a prospective and retrospective study conducted in Institute of Orthopedics and Traumatology, Madras Medical College & Rajiv Gandhi Government General Hospital

CONCLUSION: Male predominance is seen in our study. Most common age group is around 20-40 years of age. Most common site is distal femur. Common grading at the time of presentation is grade 2 and grade 3. Intralesional curettage alone has higher recurrence rates. Use of adjuvants has been well established. In Grade 2 tumor curettage with adjuvants yield satisfactory results. In Grade 3 tumors and recurrent tumors excision and reconstruction of joint with CMP or arthrodesis yield satisfactory results. Recurrence is higher in curettage than excision but MSTS post op scoring is better in curettage with adjuvants group. It requires long time follow up. Even though benign, secondary malignant transformation has been seen in various cases. Pulmonary metastasis has been reported in few cases.

Key words:

GCT, Malignancy, recurrence, metastasis, CMP, arthrodesis, excision, MSTS scoring.