Treatment of Local Recurrence of Giant Cell Tumour in Long Bones After Curettage and Cementing

Reference:

Scientific Literature Reviews

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Podiatric Relevance:
Giant cell tumor (GCT) of bone is usually located in the epiphysis/methaphysis of long bones. There have been extensively studies on GCT, however, debate continues on the ideal treatment given the high recurrence rate. This study reviews whether recurrence and morbidity can be decreased if a more extensive initial surgery is performed rather than curettage and cementing.

Methods:
This retrospective study reviewed 137 patients with GCT that were initially managed with curettage and cementing. The patients were identified through the Scandinavian Sarcoma Group Register which received data from tumor center in Scandinavian countries who underwent treatment from 1986-2003. From the study group, 19 patients required further treatment for local recurrence. The mean age at diagnosis was 35 years (15-73) for the whole group and 31 years for those who developed local recurrence. The tumor was distributed mainly in distal femur (39%) and proximal tibia (31%). Excision of primary tumor consisted of a cortical window of lesion, tumor evacuated, curettage of bone surfaces, rinsing of cavity and finally filling of bone cavity with polymethylmethacrylate cement containing gentamycin. Recurrent lesions were also managed with curettage and further cementing, in similar fashion as the initial procedure.

Results:
Of the 137 patients with GCT initially treated with curettage and cementing, 19 patients required further treatment. Local recurrence was diagnosed at median of 17 months after initial treatment, which was diagnosed by radiograph or the patient having local swelling and pain, which prompted further radiograph evaluation. Altogether, 13 patients with local recurrence were successfully treated with further curettage and cementing and had good to excellent results. Resection and reconstruction was performed on five patients with recurrence. Per authors, the choice of curettage and cementing, as the primary treatment, did not compromise the final outcome even if further surgery was necessary.

Conclusions:
The study found that local recurrence of GCT in long bones after treatment with curettage and cementing is not associated with a high morbidity or great risk of recurrence. Metastases occur in 1%-9% of patients with GCT. In this study, metastases occurred in 2 out of 137. Per authors, a more aggressive treatment of local recurrence would not decrease the risk for metastatic disease. This suggests that more extensive surgery for the primary tumor in an attempt to obtain wide margins is not the method of choice, given the increase of morbidity and no significant gain with respect to cure of the disease.