P7:109

Clinical and functional outcome of chondroblastoma of the bone - a single-centre experience with 44 patients

Funovics Philipp[1], Thomas Tiefenböck[1], Verena Stockhammer[1], Joannis Panotopoulos[1], Reinhard Windhager[1]

[1)] Medical University of Vienna, Austria

Chondroblastoma is an uncommon benign bone tumour accounting for 1-2% of all primary bone tumours. 75% of chondroblastomas affect the long bones. Most lesions arise in adolescent patients between 10 and 25 years during epiphyseal growth. The main symptom leading to diagnosis is pain and local tenderness followed by swelling and limitation of motion. Treatment of chondroblastoma consists of curretage and bone grafting and provides local control in up to 82% of patients. The local recurrence rate after curettage has been reported with 10-35%.
We have retrospectively analysed our single-centre experience with 44 patients suffering from chondroblastoma of the bone (32 men; 12 women; mean age, 21 years; range, 11-58 years), affecting the femur in17 patients (39%), the humerus in 12 patients (27%), the tibia in 5 patients (11%), (7%) the talus in 3 patients, the calcaneus in 2 patients (5%), and the os ischium, the os naviculare, the radius, the patella and the fourth toe in 1 patient each (2%). Pain was the most frequent symptom (66%). All but 2 patients were initially treated intralesionally by curettage and defect filling of the cavity. The mean age of surgery was 21 years (median, 18 years; range, 11 to 58 years).
Mean follow-up of all patients was 64 months (median, 26 months; range, 1-480 months). 4 patients were lost of follow up. In 3 patients (7%) minor complications occurred after surgery, consisting of wound healing disturbance, granuloma and haematoma. None of the patients developed a local recurrence. Functional outcome was assessed by the MSTS Score. The mean MSTS score of the upper limb was 99% with only one patient having a functional deficit. The mean MSTS score of the lower limb was 99% (median, 100%, range, 92% - 100%). 80% of patients had no functional deficit.
We conclude that chondroblastoma can be cured in up to 100% with aggressive curettage and defect filling. This technique leads to excellent functional outcome and long-term control. Therefore we may conclude that surgery more aggressive than curettage is not warranted for the treatment of chondroblastoma.

E-mail (main author): philipp.funovics@meduniwien.ac.at