

**FC-120****Local recurrence following curettage and cementation of low-grade chondrosarcomas****M. Hiz**¹, B. Gorgun¹, S. Kocak¹, S. Dervisoglu²¹ *Department of Orthopaedics and Traumatology, Cerrahpasa School of Medicine, Istanbul University, Istanbul, Turkey*² *Department of Pathology, Cerrahpasa School of Medicine, Istanbul University, Istanbul, Turkey*

Introduction: The difficulty of histopathological diagnosis leads surgeons to operate conservatively in the treatment of low-grade cartilaginous tumours. Curettage and cementation of such lesions is the accepted treatment modality with low-rate of local recurrence. Features of recurrent cases are investigated to find out which lesions are recurring.

Method: 53 patients with low-grade cartilaginous tumour; 41 female and 12 male with a mean age of 42,3 years (17-62) were treated by curettage and cementation between 1993-2014 with a mean follow-up of 46,3 months (6-240). Anatomical distribution was: 17 proximal femur, 12 distal femur, 22 proximal humerus and 2 proximal tibia. All patients had direct X-ray, CT scan, Tc99 labeled whole body bone scan and MRI before open biopsy (11 patients) or intraoperative frozen biopsy (42 patients). Histological diagnosis was low-grade cartilaginous tumour in all patients. 7 patients had titanium-screw embedded in bone cement; the rest had no internal fixation. All patients had direct X-ray and MRI at every three months first year, every six months second year and yearly X-ray and MRI up to ten years unless symptomatic.

Results: At 42,3 months average follow-up, 5 patients (2 proximal humerus, 2 distal femur and 1 proximal femur) developed local recurrence (%9,43). Time to local recurrence from index operation was mean 6,6 months (6-9). 2 proximal humerus and 2 distal femur recurrences were treated by local wide excision and tumour resection prosthesis. 1 proximal femur patient received curettage and recementation, 1 distal femur patient recurred again and was amputated. This patient also had lung metastasis and received metastasectomy. All other patients had no local recurrence or metastasis. There was no significant difference between recurrent and non-recurrent patients regarding pain, dimension of lesion, endosteal cavitation, cortical invasion and preoperative MRI. There was no histological difference between initial biopsy, curettage material and recurrent lesion. All had low-grade cartilaginous tumours, except the metastatic patient who had dedifferentiation of metastasectomy specimen. All patients had slight Tc99 uptake in initial bone scan.

Conclusion: We could not find any striking feature in recurrent patients clinically, histologically or radiologically; but all recurrences were seen approximately in postoperative sixth month MRI without any clinical symptom. Any gadolinium enhancing post-operative MRI cement-bone interface should be regarded as recurrence and local wide excision is the preferred method of treatment. A strict follow-up regimen of every three months for first year is strongly recommended.