

**FC-078****Use of osteoarticular bone allografts in limb salvage reconstruction of the proximal tibia****L.C. Gomez**, C. Soto, M. Maldonado, R. Sanchez*Instituto Nacional de Cancerología, Bogota DC, Colombia*

Limb sparing procedures are the standard for local control of malignant or benign aggressive bone tumors in the appendicular skeleton. Reconstruction and restore of function can be achieved by means of osteoarticular allografts, allo-prosthetic composite and endoprosthesis. The proximal tibia is a demanding surgical site due to the lack of soft tissue coverage and the need of sacrifice some of the vascular systems of the leg.

Objective: To evaluate of the functional, oncological outcomes and complications of 32 patients operated between 2001 and 2012 using osteoarticular bone allografts for reconstruction after resection of the proximal tibia. To compare this outcome with the ones obtained in resections of the distal femur.

Material and Methods: This is a retrospective descriptive study (case series) based on the analysis of the clinical records and imaging studies of patients suitable of limb sparing procedures in or institution. Follow up 3-132 months.

Results: Osteosarcoma was the most common diagnosis (65%). No local recurrences were found. The functional result according to the MSTS system was 70 (64-76). With regard to complications: superficial infection was found in 8 patients (25%) and deep infection in 5 (15,6 %). 2 out of these 5 patients ended in an amputation. Nonunion 5 patients (15,6%), and articular failure 14 patients (46,7%). The functional result of distal femur reconstruction in our historical series was 80 and the infection rate was 9% (difference statistically significant).

Conclusions: Osteoarticular bone allograft reconstruction of the proximal tibia is a reasonable alternative in limb sparing surgery providing an adequate tumoral local control is achieved. Restoration of bone stock and conservation of the adjacent joints favor the use of osteoarticular allografts, but higher rates of complications were found compared to other anatomic sites like distal femur.