

An analysis of 136 periacetabular resection with reconstruction from two institutions.

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Background. Surgery of pelvic sarcomas shows higher rates of local recurrence and complications and a lower functional outcome than other localizations.

Purposes. 1) to assess the outcome and local recurrence rate after limb salvage surgery with reconstruction for periacetabular bone tumors, 2) to analyze complications and their relationship with type of reconstruction.

Patients and methods: From 1990 to 2014, 136 patients with periacetabular bone tumors were treated by resection and reconstruction. Mean follow-up was 5.3 years. Chondrosarcoma was the most common histotype (82 cases). Thirtyseven patients had type II resections and combined resections were performed in 31 cases (type I-II), 48 cases (type II-III), 19 cases (type I-II-III). Reconstructions included allograft-prosthetic composite in 65 cases, trabecular metal prosthesis in 4 cases, allograft only in 20 cases, prosthesis only in 33 cases, saddle prosthesis in 13 cases and arthrodesis in one case.

Results: Margins were wide in 103 cases, wide but focally contaminated in 17 cases, marginal in 7 cases, intralesional in 9 cases. Oncologic outcome showed: 75 patients CDF, 11 NED after treatment of relapse, 16 AWD, 30 DWD and 4 dead of other causes. Survival was 76% and 67% at 5 and 10 years respectively. Incidence of local recurrence and metastasis was 25% and 32% respectively. Average MSTS score was 21/30. Deep infection was the most common complication (24.3%).

Conclusions: Favourable oncologic and functional outcome can be achieved with conservative surgery. Infection is a major complication requiring further surgery. The use of allografts did not increase risk of infection.