

Extraarticular resection for malignant tumors of pelvis or proximal femur involving hip joint

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**【Abstract】**

**Introduction** To acquire a safe surgical margin, extraarticular resection should be performed for patients with malignancies of pelvis or proximal femur involving hip joint. However, very few reports specifically address this surgical technique.

**Object** To describe the surgical technique and evaluate the clinical outcome of the surgery.

**Methods** Retrospectively study of 11 patients (7males, 3 females; mean age, 42.2 yr; range, 19-68 yr) with malignant tumors of pelvis or proximal femur involving hip joint underwent extraarticular resections of hip joint in Peking University People's Hospital. The tumors originated from pelvis in 3 patients, from proximal femur in 7 patients and in soft-tissue of thigh in 1 patient. The pathologic diagnosis was chondrosarcoma in 2 patients, osteosarcoma in 7 patients, Ewing sarcoma/PNET in 1 patient and soft-tissue sarcoma in 1 patient.

**Results** All 11 patients received en bloc extraarticular resection, including 8 wide/marginal margin and 3 intralesional margin. The bony defect was reconstructed by modular hemipelvic prostheses and femoral prostheses. All patients were followed up for 10 to 37 months (mean follow-up time, 19.7 mo). 4 patients died during the follow-up period. Local recurrence was found in 4 patients while lung metastasis was detected in 3 patients. The 2-year disease-free survival was 71%. The complications included dislocation (1 case) and deep infection (1 case). The postoperative ISOLS 93 score was 53% to 89% (mean score, 65.6%).

**Conclusion** The extraarticular resection is a safe, effective surgical procedure for malignant tumors of pelvis or proximal femur involving hip joint. Using the modular hemipelvic and proximal femoral prostheses for the reconstruction of hip joint can achieve reasonable function and low complication rates.