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## Outcome of Surgical Treatment of Pelvic

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**Methods:** 22 consecutive patients with pelvic osteosarcoma underwent surgical procedures between June 2000 and June 2009. There were 13 males and 9 females with a mean age of 29.7 years. According to Enneking and Dunham pelvic classification system, there were 3 cases with Type I, 3 cases with Type I+IV, 5 cases with Type I+II, 4 cases with Type II+III, 1 case with Type I+II+III, 1 case with Type III, and 5 cases with type I+II+IV. Twenty-one of 22 patients were diagnosed pathologically as the conventional and the other one was low-grade osteosarcoma. All the patients received en bloc resections including 17 wide or marginal margins and 5 intralesional margins. Fourteen patients underwent modular hemipelvic endoprosthesis reconstruction and 6 patients underwent rod-screw system reconstruction combined with autograft, and 2 patients with no reconstruction after resection. The mean follow-up time was 30.3 months (ranged from 4 to 89).

**Results:** Local recurrence rate was 31.8% (7/22), including 4 of 5 patients with intralesional margins, 3 of 16 with wide or marginal margin. The local recurrence rate was 17.6% (3/17) in patients with wide or marginal resections, and 80% in patients with intralesional surgery (4/5). At the last follow-up, lung metastasis was found in 9 of 22 (40.9%) patients, and bone metastasis was found in one patient.

Among 22 patients with pelvic osteosarcoma, 8 patients died, 5 patients alive with diseases and other 9 patients with tumor-free survive. The 5-year overall survival rate was 44.3%. The average MSTS 93 score was  $17.6 \pm 5.4$  for the 14 patients with hemipelvic endoprosthetic reconstruction and  $22.5 \pm 2.1$  for 6 patients with rod-screw reconstruction. Wound complication was found in 7 of 22 patients (31.8%).

**Conclusion:** The majority of the patients with pelvic osteosarcoma can be treated with limb salvage surgery and can be preserved good function after the surgery. The long-term oncological result is still not satisfied because of anatomic location, big volume of the tumor at the surgery. Five years survival is much lower than that in osteosarcoma of the extremity.

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