

Research

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## Research: Is resection of tumours involving the pelvic ring justified? : A review of 49 consecutive cases

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### Abstract

**Introduction:** Pelvic surgery is challenging and impacts significantly on limb and visceral function, thus, raising the question "is heroic surgery justifiable". This study assessed the functional, oncologic and surgical outcomes following pelvis tumour resections.

**Methods:** Between 1996–2003, 49 patients (mean age 43 years) underwent pelvic tumour resections- 38 primary malignant tumours, 5 secondary tumours and 6 benign tumours. Bone tumours comprised 5 osteosarcomas, 5 Ewings sarcomas, and 12 chondrosarcomas. Of the soft tumours, 9 were of neural origin. Tumours involved the ilium, acetabulum, pubic bones, sacrum or a combination of these. Functional assessment was performed and no patient had metastases at presentation.

**Results:** There were 41 limb sparing resections and 8 hindquarter amputations. Surgical margins were intralesional (1), marginal (13), wide (26), and radical (3). Of limb sparing surgery, prosthetic reconstructions were performed in 10 patients, biologic reconstructions in 6, a combination of these in 3 and no reconstruction in others. There was 1 intraoperative death, 7 local recurrences and 19 metastases. Death from disease occurred at a mean of 14.2 months with a mean followup of 27 (1–96) months. Amputation and periacetabular resections had worse functional outcomes. Emotional acceptance was surprisingly high.

**Conclusion:** Pelvic resections are complex. Functional outcome is significantly affected by surgery. Disease control is similar to limb tumours. Emotional acceptance of surgery in survivors was surprisingly high. Major pelvic resection for malignancy appears justified.

### Background

Pelvic resection is challenging and can have significant functional, social and psychological impact on the patient. It is also associated great morbidity especially when extensive resection is required to attain adequate surgical margins. With the introduction of adjuvant chemotherapy and radiotherapy, and improved reconstruction

techniques, limb- sparing surgery has largely replaced external hemipelvectomy. However, given the often poor prognosis of patients with pelvic tumours, the question of whether this type of surgery is justified remains unanswered. This study assessed the functional, oncologic and surgical outcomes following pelvic tumour resection.