

Outcome of pelvic/sacral resection and reconstruction for bone tumors

Ahmad M Shehadeh,MD

Back ground:

The pelvic girdle is a common location for primary bone sarcomas and metastatic lesions with the periacetabular region being the most common location followed by the ilium and the pubis. Refinements in surgical techniques have allowed the execution of limb salvage surgery in these locations.

Methods and Materials:

Twelve patients received pelvic/sacral resection From 2006 to 2013 by same surgeon (A.Shehadeh), using appropriate surgical techniques.

Type 1 (n=5), type 2 (n=2),type 3 (n=1),type 4(n=1), combined type 2&3(n=1), partial sacrectomy in 2 patients . Histopathology was chondrosarcoma 4 patients, Chordoma 2 patients, GCT, Fibromatosis, Ewing sarcoma, Osteosarcoma, High grade sarcoma and metastatic renal cell carcinoma one patient each. Reconstruction was performed in 3 patients (type 2 and combined type 2&3)using lumic cup prosthesis (Implant cast) and cage and Autogenous bone graft in one patient.

Negative resection margin was achieved in 10 patients, and 2 patients there was a microscopic positive margin.

Results:

At mean follow up of 33 month (6-55month), 2 patients(OS, GCT) developed local recurrence, and one of them died of the disease, 8 patients were disease free at last follow up, one patient developed skin edge necrosis and managed successfully with wound debridement, and one patient developed deep wound infection and managed successfully with removal of the implant, repeated debridement, IV antibiotic and vacuum dressing.

the average MSTS score for all patients was 80%.

Conclusion:

Pelvic resection is demanding surgery, to be done only by experts surgeon and in well-equipped Centers. When done by expert hands, Pelvic resection can provide

long term local control and very good functional outcome in patients with pelvic tumors, involved surgical margin is associated with high local recurrence and subsequent death.

In carefully selected cases hemipelvectomy with all its physiological and psychological consequences can be avoided .