

**FC-021****3D technology and large defect reconstruction in sarcoma patients after hemipelvectomy – Survival and functional results****D. Kotrych**, A. Bohatyrewicz*Pomeranian Medical University of Szczecin, Szczecin, Poland*

Introduction and Aims: Surgical treatment of primitive malignant bone tumors has radically changed in recent years since modern imaging, reconstructive surgery techniques and above all pre- and postoperative chemotherapy protocols were put into use. In massive or neglected bone tumors there is a frequent dilemma whether reconstructive surgery is a reasonable treatment or not. The aim of the study is to show the results of treatment in neglected cases of bone tumors around pelvis.

Method: Material was composed of 24 selected patients hospitalised at The Department of Orthopaedic Oncology of Pomeranian Medical University of Szczecin between 2008 and 2015. All of them were diagnosed with extremely advanced forms of primary pelvic lesions and were initially disqualified for salvage surgery. The following surgical techniques were used: hemipelvectomy E1 with en bloc tumor resection without internal fixation (11 cases), tumor resection with hemipelvectomy E2, bone graft and internal fixation (2 cases), hemipelvectomy E3, reconstruction with LUMIC prosthesis (8 cases), hemipelvectomy E2 with Stanmore custom made prosthesis of posterior column (2 cases), external hemipelvectomy (2 cases). The follow-up period varied between 6 months and 5 years in different patients.

Results: Average 3 year survival rate was 52%. 13 alive patients/25 in all. In 12 patients the functional result was satisfactory, in one case the implant had to be removed due to periprosthetic fracture.

Conclusions: One of the main conclusions emphasized by authors is the problem of frequently seen late diagnosis which in most cases is the basic reason for recurrence and bad final result. In 4 cases patients' awareness of the disease was very little which influenced the final outcome. The tendency to limit the indications for amputation or disarticulation even in cases of advanced tumors was put forward.