

**PP-052****Custom diaphyseal endoprosthetic reconstruction for malignant bone tumors.
Experience of the East European Sarcoma Group**

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Introduction: The best method of reconstruction after resection of malignant tumors of the bone diaphysis is unknown. The aim of our study was to analyze and integrate data endoprosthesis replacement diaphyseal bone in children and adults.

Methods: We present a retrospective review of 19 patients (1998-2014y) who underwent limb salvage using a bone diaphyseal endoprosthetic replacement following excision of a bone tumor. Nine patients were children with bone sarcoma aged 8 to 15 years, mean age was 11.6 years. Ten patients were adults aged 28 to 67 years, mean age was 52.5 years. The most frequent pathology was metastatic kidney cancer.

Results: All patients after surgery were activated in the early stages and, if necessary, resumed adjuvant treatment protocol adopted at the institute. The most frequent complication in patients after total diaphyseal defects was aseptic loosening of the endoprosthesis, which occurred in 6/19 patients (31.5%). From the progression of the underlying disease 2 patients died and one patient developed local recurrence, which required disarticulation of limbs. 6 patients underwent revision surgery for instability of the endoprosthesis. In neither case was not observed the development of infectious complications. Follow-up of 1 year to 8 years in adults and from 6 months to 10 years were in children.

Conclusion: Patients with primary and metastatic tumors of the diaphysis of long bones require an individual approach when choosing a treatment strategy and the method of reconstruction. Not looking at high frequency complications and revision surgery, joint replacement in the early stages allows to activate the patient and resume adjuvant treatment is an alternative to amputation and other methods of reconstruction without compromising oncological prognosis.