

Tibia Translocation with Hip Reconstruction After Total Femur Resection in a Child with Osteosarcoma: A Case Report

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INTRODUCTION

Osteosarcoma is among the most common malignant bone sarcomas in children. Methods of limb salvage and reconstruction are challenging and limited in this age group. Here we present a rare limb-preserving technique for a patient whose alternative would be hip disarticulation.

REPORT:

An 11-year-old boy was diagnosed with metastatic high grade osteosarcoma of the femur which was not responding to neoadjuvant chemotherapy. In view of the massive soft tissue component, a total femur endoprosthesis was not a viable option. A limb-preserving surgery was done in which the total femur and surrounding soft tissue was resected, the leg translocated proximally, and the hip reconstructed using a bipolar hemiarthroplasty fixed to the tibia. Syme amputation of the foot was done to form an end stump. The patient was planned to be fitted with an above knee prosthesis.

CONCLUSION:

This surgical technique is not known to be reported before. It provides a longer amputation stump that allows immediate weight bearing post total femur resection.



Figure 1: MRI showing extensive bone and soft tissue lesion with skip lesion to greater trochanter of left femur.



Figure 2: Radiograph showing bipolar hemiarthroplasty (Stryker) well fitted into left tibia.

REFERENCES:

1. Fuller CB, Lichtblau CH, Paley D. Rotationplasty for Severe Congenital Femoral Deficiency. *Children*. 2021; 8(6):462. <https://doi.org/10.3390/children8060462>