

Distal Femur Replacement From a High-Grade Chemoresistant Osteosarcoma

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This video demonstrates limb-sparing surgery with distal femur replacement for management of a high-grade and chemoresistant parosteal osteosarcoma that back-invaded into the femur. The 16-year-old patient underwent 3 months (two cycles) of preoperative chemotherapy after diagnosis. Despite management, the local tumor grew substantially and metastasized. Therefore, radical resection of the mass and distal femur replacement was performed. At 1 month postoperatively, the patient was ambulating well and had minimal pain. Physical therapy and adjuvant chemotherapy were continued to prevent recurrence in the femur. Limb-sparing surgery was performed instead of amputation because of the presence of numerous metastases, including distant lung and soft-tissue metastases.