

Advancing Health

A CASE STUDY from MedStar Washington Hospital Center

Identification, Management and Resection of **Malignant Soft Tissue Tumors**

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Abstract

Soft tissue tumors are frequently benign but can harbor a primary malignancy in rare cases. In this case study, a 65-year-old's enlarging thigh mass, thought to be a benign lipoma, was surgically removed without pre-operative imaging. The post-op pathology returned a high-grade sarcoma with cancer cells present at the margin, requiring additional surgery. Due to contamination of multiple planes at the time of the original surgery, an extensive limb-salvage surgery was successfully performed, followed by adjuvant radiotherapy. The patient remains cancer-free 18 months after the original surgery.



MedStar Orthopaedic
Institute

CASE STUDY

Identification, Management and Resection of Malignant Soft Tissue Tumors

Patient Presentation

- 65-year-old female with an enlarging thigh mass.
- Past medical history: Excision, without pre-operative imaging, by a plastic surgeon believing the mass to be a benign lipoma.
- Pathology confirmed a high-grade undifferentiated pleomorphic sarcoma (HG-UPS).
- Prior history significant only for sarcoidosis, with prior thoracotomy and lung biopsy.

Assessment

- Upon referral to MedStar Washington Hospital Center, the high-grade sarcoma was confirmed. The prior attempted resection contaminated multiple tissue planes. The incision was oriented in the transverse direction instead of an extensile longitudinal direction, complicating limb-salvage surgery.

Diagnosis

- High-grade undifferentiated pleomorphic sarcoma (HG-UPS), 4.6 x 4.1 x 3.8 cm in size, with tumor present at the margins of the resection.

Treatment

- Complete imaging of the limb and systemic staging of the patient.
- Salvage limb-sparing surgery to remove the entire site of the previous surgery and affected tissue planes. The skin incision was completely excised as well with conversion of the transverse incision into a longitudinal, extensile incision.
- Final pathology showed a 1.8 cm residual tumor with completely negative margins.
- Adjuvant external-beam radiation to the thigh was given to reduce local recurrence.

Outcomes

- The patient remains cancer free a year and a half post-procedure.

Conclusion

- Pre-operative imaging of any enlarging soft tissue mass should be performed to distinguish lipomas from other solid tumors.
- Biopsies of suspected sarcomas should be performed under the direction of a trained musculoskeletal oncologist.
- Surgical planning should include use of extensile incisions (longitudinal in the extremities).



Robert M. Henshaw, MD

“Musculoskeletal oncology is a complex discipline. At MedStar Washington Hospital Center, we have a multidisciplinary team of surgical, medical, radiation and other oncology specialists who consult regularly and work closely with colleagues from other departments to treat even the most complicated cases, especially in patients with multiple co-morbidities. It’s gratifying to be able to provide such complete care for these patients because all the resources they need are right here.”

Leading the Way:

A Multidisciplinary Orthopaedic Oncology Team

MedStar Washington Hospital Center is a state-of-the-art facility, featuring some of the most sophisticated diagnostic and treatment technologies in the country. Providing unique and specialized treatment, the orthopaedic oncologists are supported by nurses, pharmacists, nutritionists, and therapists, and have access to the latest innovations and technology in cancer care. Our surgeons consult on complex cases for patients age 12 and older, with multiple co-morbidities.

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