

# Leiomyosarcoma: Unraveling the Mysteries of a Rare Soft Tissue Sarcoma

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**Abstract:** *Uterine leiomyosarcoma is a rare malignant tumor accounting for almost 2-5% of all uterine malignancies. The highest prevalence is seen in the pre and perimenopausal age group<sup>1</sup>. Uterine Leiomyosarcoma often presents with abnormal vaginal bleeding (56%), palpable pelvic mass (54%), pelvic pain (22%). It is an aggressive tumor that is challenging to treat because of its high resistance to standard therapy, as evidenced by high rates of booth recurrence and progression. Most common sites for metastasis to lungs (74%) followed by peritoneum (41%), bone (33%) and liver (27%)<sup>2</sup> Due to its rarity, pathological diagnosis, surgical management, and systemic treatment are challenging. Treatment decision process in these tumors should be taken in a multidisciplinary tumor board<sup>3</sup>.*

**Keywords:** Uterine leiomyosarcoma, abnormal bleeding, metastatic cancer, treatment resistance, multidisciplinary management

## 1. Case Report

A 54 year old P1L1 with last child birth 30 years back, not tubectomized, came with complaints of right shoulder pain and swelling since 6 months, c/o mass per abdomen since 1 year, No c/o Bleeding per vagina, No c/o loss of weight/ loss of appetite. On per abdominal examination 18x10cm pelvic mass, hard in consistency. On perspeculum examination Cervix pulled up, vagina healthy. Pervaginal examination Cervix pulled up, Bilateral Fornices free and Non-tender. On per rectal examination rectal mucosa free. On local examination of Right shoulder free: Diffuse tenderness present over right shoulder. All range of motions at Right shoulder restricted. Firm to hard swelling of size 6x8 cm located over right shoulder with soft tissue component. X ray right shoulder which was suggestive of a lytic lesion involving the Head and proximal end of the right humerus. On MRI right shoulder - suggestive of 10 x 9 cm heterogenous signal intensity soft tissue mass lesion involving the humeral head and upper end of the humerus, extending into the shaft, gleno-humeral joint and surrounding soft tissue - likely osteosarcoma /aggressive giant cell tumour. On MRI Pelvis - revealed a large nodular multi-lobulated lesion of size 16.4 x 14.5 x 10 cm involving the uterus and cervix. Suggestive of Uterine leiomyosarcoma with bone metastasis. PET - CT was suggestive of primary uterine malignancy with osteolytic skeletal metastasis. Likely sarcomatous? Leiomyosarcoma. Needle biopsy from right humerus and abdominal mass shows Malignant soft tissue spindle cell tumor and Possibility of Spindle cell tumor can be considered respectively. Immunohistochemistry positive for Desmin, negative for S100, SMA, h-caldesmon, CK, CD34, TLE1, BCL2, MyoD1, Myogenin.

Ki67 index is 50%

## 2. Results

Patient started on palliative chemotherapy with IFOSFAMIDE +ADRIAMYCIN.

## 3. Conclusion

Leiomyosarcoma, a rare tumor subtype, accounts for 1% of all uterine malignancies, but contributes to a significant proportion of uterine cancer deaths. Its aggressive tumor biology and relative chemotherapy and radiotherapy resistance, efficacious therapies to achieve prolonged survival or cure in those with both early and advanced-stage uterine leiomyosarcoma have been elusive. Treatment options available are surgical and medical management of uterine leiomyosarcoma, the role of targeted therapies, and the implications of uterine morcellation on gynecologic surgical practice.

## References

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