



Leiomyosarcoma presenting as endometrial thickening: A Diagnostic Challenge

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INTRODUCTION :

Endometrial thickening is frequently observed in perimenopausal and postmenopausal women and is commonly attributed to hormonal fluctuations, benign hyperplasia, or malignancies such as endometrial carcinoma. However, in rare instances, it may mask more aggressive tumors such as uterine leiomyosarcoma (ULMS), a rare malignant neoplasm accounting for 1–2% of all uterine cancers. ULMS typically presents as a rapidly enlarging uterine mass that clinically and radiologically resembles benign fibroids, and is often diagnosed only postoperatively through histopathological examination. **Could an endometrial thickening that initially appears benign conceal an aggressive tumor such as ULMS?**

METHODES AND MATERIELS :

We present the case of a 55-year-old nulliparous woman with blood type O Rh-positive, with no significant medical history and a past surgical history of mastoidectomy for otitis media (1994) and adenoidectomy (1997). she has no family history of neoplasia, and reached menopause 2 years ago. She presents **postmenopausal metrorrhagia**.

Physical examination was unremarkable. Pelvic ultrasound and MRI revealed a suspicious corporeo-cervical **endometrial thickening** measuring 67 × 84 mm, infiltrating over 50% of the myometrial thickness. It further suggested secondary ovarian involvement and bilateral enlargement of the internal iliac lymph nodes, consistent with FIGO stage III.

The patient underwent an endometrial biopsy, which revealed pathological features consistent with leiomyosarcoma.

Immunohistochemical analysis showed negative staining for caldesmon, AE1/AE3, and CD34, with a Ki67 proliferation index of 90%.

A staging assessment was performed, which revealed an endometrial uterine process with lymphadenopathy and bilateral internal iliac lymph node involvement, pelvic ascites, and no evidence of secondary pulmonary, hepatic, or bone metastases.

A mammographic examination classified both breasts as BIRADS 2.

Surgical exploration revealed an enlarged uterus, no ascites or carcinomatosis, suspicious lymph nodes in the iliac chains, no macroscopic involvement of the serosa, cystic ovaries.

Peritoneal lavage was performed for cytological study, bilateral adnexectomy, radical colpohysterectomy, pelvic lymphadenectomy.

Histological results and the immunohistochemical profile confirmed a well-differentiated **uterine leiomyosarcoma**, staged as pT3N0M0.

DISCUSSION :

This case highlights the diagnostic challenge of ULMS, confirmed only postoperatively despite the absence of typical symptoms or suspicious imaging. In perimenopausal metrorrhagia with endometrial thickening, malignancy must always be considered. ULMS often presents with systemic deterioration, anemia, rapid uterine growth, and heterogeneous imaging—features absent in our patient. She was in good health, and imaging was non-specific, yet histology revealed an aggressive leiomyosarcoma, emphasizing the risk of underdiagnosis in clinically silent cases.

CONCLUSION :



Initially benign-appearing endometrial thickening can conceal an aggressive tumor like uterine leiomyosarcoma. Accurate diagnosis is hindered by the tumor's nonspecific presentation and its resemblance to benign uterine lesions. This case underlines the importance of maintaining a high index of suspicion and pursuing histopathologic confirmation in postmenopausal metrorrhagia with atypical findings.