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Case Report

Uterine lipoleiomyoma: rare presentation of postmenopausal bleeding

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ABSTRACT

Uterine lipoleiomyomas are rare benign tumors composed of mature adipose tissue and smooth muscle cells. They account for less than 0.2% of all uterine neoplasms and are typically asymptomatic, often discovered incidentally. Symptomatic cases presenting with postmenopausal bleeding are exceedingly rare. A 63-year-old postmenopausal woman presented with intermittent vaginal bleeding for one month. Imaging revealed a well-defined hyperechoic mass in the posterior uterine wall. Magnetic resonance imaging (MRI) confirmed the fat-containing lesion suggestive of lipoleiomyoma. She underwent total abdominal hysterectomy. Histopathology confirmed uterine lipoleiomyoma with no evidence of malignancy. Although rare, uterine lipoleiomyoma should be considered in the differential diagnosis of postmenopausal bleeding. Radiological evaluation is key, but histopathological confirmation is essential.

Keywords: Lipoleiomyoma, Uterine tumor, Postmenopausal bleeding, Benign neoplasm, Adipose tissue, MRI, Histopathology

INTRODUCTION

Uterine lipoleiomyoma is a rare benign tumor characterized by an admixture of mature adipose tissue and smooth muscle cells.[1,3] First described by Lobstein in the early 19th century, lipoleiomyomas are considered a variant of conventional leiomyomas. They are usually found in postmenopausal women and are often incidental findings during imaging or surgery.[4]

Although typically asymptomatic, they can occasionally present with pelvic pain, pressure symptoms, or abnormal uterine bleeding. Postmenopausal bleeding is an alarming symptom that often leads to investigations for malignancy. Here, we report a rare case of uterine lipoleiomyoma presenting with postmenopausal bleeding in an otherwise asymptomatic patient.

CASE REPORT

A 63-year-old multiparous woman presented with intermittent, painless vaginal bleeding for one month. She attained menopause 14 years prior and had no history of hormone replacement therapy or prior abnormal uterine bleeding.

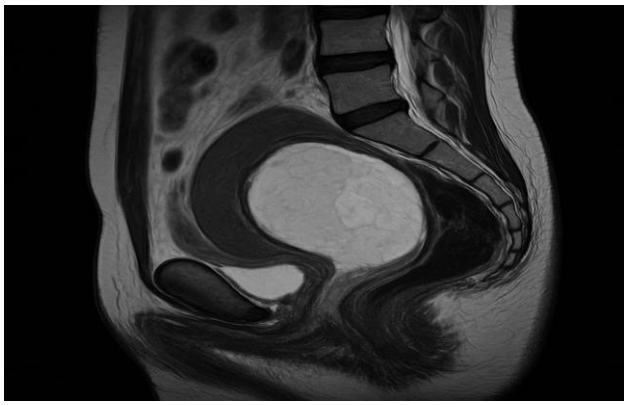

Figure 1: MRI picture revealing sharply defined lesion with high T1 and T2 signal intensity, with suppression on fat saturation sequences-suggestive of a fat-containing tumor, most likely lipoleiomyoma.

On general examination, vital signs were within normal limits. Per speculum examination revealed minimum blood-stained discharge. Bimanual examination indicated a slightly enlarged, firm, non-tender uterus.

Investigations

Investigations include: hemoglobin: 11.4 g/dl, Pap smear: negative for intraepithelial lesion or malignancy, transvaginal ultrasound (TVUS) showed a well-circumscribed, and hyperechoic intramural mass measuring 5.0×4.2 cm.

Magnetic resonance imaging (MRI) pelvis revealed a sharply defined lesion with high T1 and T2 signal intensity, with suppression on fat-saturation sequences-suggestive of a fat-containing tumor, most likely lipoleiomyoma.

Endometrial biopsy showed atrophic endometrium with no evidence of malignancy. In view of persistent bleeding and concern for a possible uterine neoplasm, the patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy. Gross examination revealed a well-circumscribed, yellow-white mass within the myometrium.

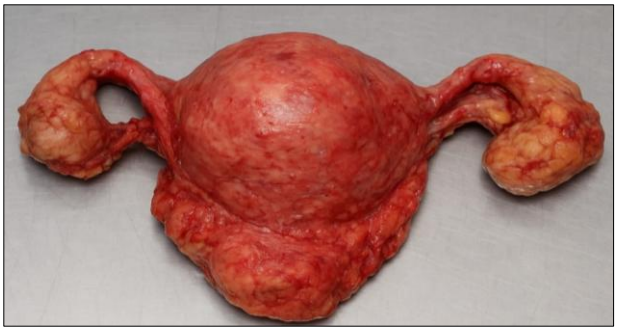

Figure 2: Total abdominal hysterectomy gross specimen showing a large mass arising from posterior wall (about 5×4 cm).

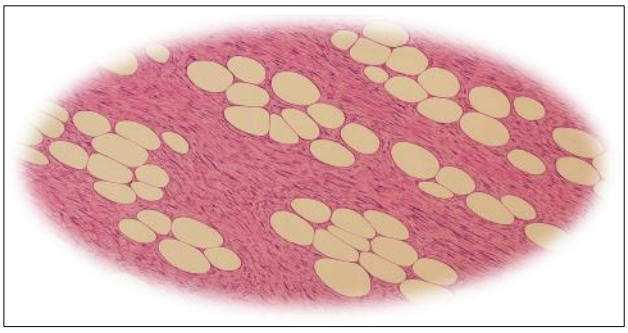

Figure 3: Tumor composed of mixture of interlacing bundles of benign smooth muscle cells intermixed with evenly distributed mature adipose tissue arranged in lobules and sheets (haematoxyline andeosin stain, 40x).

Microscopic analysis confirmed the diagnosis of lipoleiomyoma, composed of interlacing bundles of benign smooth muscle fibers intermixed with mature adipose tissue. There was no cellular atypia, mitosis, or necrosis. Endometrium was atrophic.

The postoperative period was uneventful. At 3-month follow-up, the patient remained asymptomatic with no recurrence of symptoms.

DISCUSSION

Lipoleiomyomas are rare uterine tumors thought to arise through fatty metamorphosis of smooth muscle cells or fatty infiltration.[2,4] Their incidence is low (0.03–0.2%), predominantly in postmenopausal women. The pathogenesis remains unclear, though hormonal and metabolic factors such as obesity, diabetes, and hyperlipidemia have been proposed.[1,3] Our patient has none of these risk factors making the case more unusual.

MRI helps distinguish lipoleiomyoma from other fat-containing pelvic masses like liposarcoma, ovarian teratoma, or degenerated leiomyoma.[2,5] Histopathological confirmations is essential for diagnosis. Symptomatic or uncertain cases, especially in postmenopausal women, warrant surgical management.[4,6]

CONCLUSION

Uterine lipoleiomyoma is a rare but significant differential diagnosis in postmenopausal bleeding. MRI provides valuable diagnostic clues, but histopathology remains the gold standard. Awareness of this entity helps prevent mis-diagnosis and ensures appropriate management.

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REFERENCES

1. Shenoy HT, Kambalavan S, Puthuprakkat S, Singh MN, Sasidharan A, Thomas JP. Uterine lipo-leiomyoma in post-menopausal women: two interesting cases. Int J Reprod Contracept Obstet Gynecol. 2022;11(10):2866-71.
2. Wan Y, Zhang X, Sun Y, Wang L, Liu G. Uterine lipoleiomyoma: a benign entity with malignant transformation potential? Eur J Gynaecol Oncol. 2022;43(2):363-7.
3. Dhal I, Prasad S, Rudra Pal P. A rare case of bilateral ovarian adult granulosa cell tumors associated with uterine lipoleiomyoma – case report and review of literature. Asian Pac J Cancer Care. 2025;10(1):365-8.
4. Minjaullah NH, Hassan M, Haider MJ, Imran M. Premenopausal and postmenopausal uterine lipoleiomyoma: a report of two cases. J Ayub Inst Med Coll Abbottabad. 2023;21(1):67-70.

5. Goyal L, Phool D, Jain C. A rare variant of uterine leiomyoma-lipoleiomyoma. Int J Reprod Contracept Obstet Gynecol. 2024;13(10):2915-8.
6. Braganza JS, Wilson MR, Huang ZL, Penna DS-D, Johnson DE. Recurrent large extrauterine lipoleiomyoma in a postmenopausal woman: a case report. Cureus. 2023;15(8):e43193.

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