Content available at: https://www.ipinnovative.com/open-access-journals

IP Journal of Diagnostic Pathology and Oncology

Journal homepage: https://www.jdpo.org/

Case Report

# Uterine lipoleiomyoma - An unusual presentation

**Lav Behl[1], Neelam Gupta[1,*], Vikas Dubey[1], Mehak Kashyap[1], Nechal Kaur[1]**

[1] *Dept. of Pathology, Maharishi Markandeshwar Medical College and Hospital, Solan, Himachal Pradesh, India*

ARTICLE INFO

*Article history:*
Received 19-08-2021
Accepted 27-08-2021
Available online 13-09-2021

*Keywords:*
Umbilical endometriosis
Cutaneous endometriosis
Endometriosis

ABSTRACT

Uterine leiomyoma is one of the most common benign pathology in women and lipoleiomyoma is an extremely rare and specific type of leiomyoma. Here we are reporting and incidental of lipoleiomyoma in a 43 year old perimenopausal women presented with lower abdominal pain since 2-3 days and discharge per vaginum on and off.



## 1. Introduction

Lipoleiomyoma is a rare variant of uterine leiomyoma. Composed of an admixture of lobules of adipocytes and smooth muscle cells. Usually occurs in obese postmenopausal women and is mostly asymptomatic. Can be associated with adenomyosis, endometriosis, endometrial hyperplasia and polyps. Overall reported incidence is 0.03%–0.25%**.**We report a case of uterine lipoleiomyoma in an elderly, perimenopausal woman. [1,2]

## 2. Case Report

A 43-year old perimenopausal woman presented with pain in lower abdomen since 2-3 days and discharge per vaginum on and off. Per Abdomen was soft, non-tender and uterus was 16 weeks-sized. Hematological and biochemical investigations were normal. Abdominal and pelvic ultrasonography (USG) revealed heterogeneous hyperechoic lesion measuring 13.4x8.4cms in the posterior myometrium with ill defined fat planes within endometrium. Intramural uterine fibroid (small). MRI pelvis revealed large intramural degenerative fibroid in posterior myometrium displacing the endometrium anteriorly. Multiple intramural and subserosal fibroids. Laparotomy followed by Total Abdominal Hysterectomy with bilateral Salpingo-Oophorectomy was done and specimen was sent for frozen section. A specimen of uterus with cervix with bilateral ovaries and fallopian tubes with submucosal and intramural fibroids was received for frozen section. Measured 17x14x9 cms. Largest fibroid was submucosal and measured 13x11x6cm. Grossly, there were no areas of hemorrhage or necrosis. Intramural fibroid varied from 0.5 to 2 cm in diameter. Right ovary measured 4x3x1cm and on cut opening showed hemorrhagic, solid, cystic areas measuring 2x1cm. Right fallopian tube measured 7cm in length. Left ovary measured 3x2.5x0.8 cm and on cut opening showed hemorrhagic, solid and cystic areas with cyst measuring 1x1cm. Left fallopian tube measured 6cm in length. Cervix measuring 3 cm in length.

Frozen section from the larger fibroid was performed. Microscopic examination showed Mesenchymal - Smooth muscle tumor. Minimal atypia and no necrosis in the sections studied. Multiple paraffin embedded sections were then examined.

* *Corresponding author*.
*E-mail address*: neelamgupta353@gmail.com (N. Gupta).

https://doi.org/10.18231/j.jdpo.2021.049

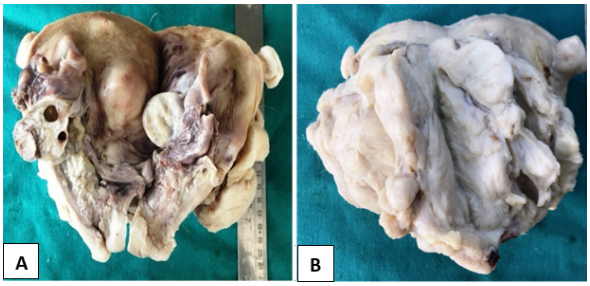


**Fig. 1:** A) Specimen of Uterus with Cervix with Bilateral Ovaries and Fallopian tubes with submucosal and intramural fibroids; B) Submucosal fibroid measuring 13x11x6 cm.

### *2.1. On microscopy*

1. Myometrium - Showed leiomyomata. Sections from larger leiomyoma revealed a tumor with interlacing fascicles of smooth muscle cells admixed with sheets of mature adipocytes. Nuclei of the smooth muscles were elongated and had even chromatin. Focally showed neurolimoma like pattern with areas of extensive hyalinization and myxoid change. There was no atypia, mitotic figures or necrosis.
2. Endometrium- Showed secretory endometrium.
3. Cervix- Showed squamous metaplasia and chronic cervicitis.
4. Right ovary- Showed hemorrhagic corpus luteum cyst.
5. Left ovary and bilateral fallopian tubes – Unremarkable.

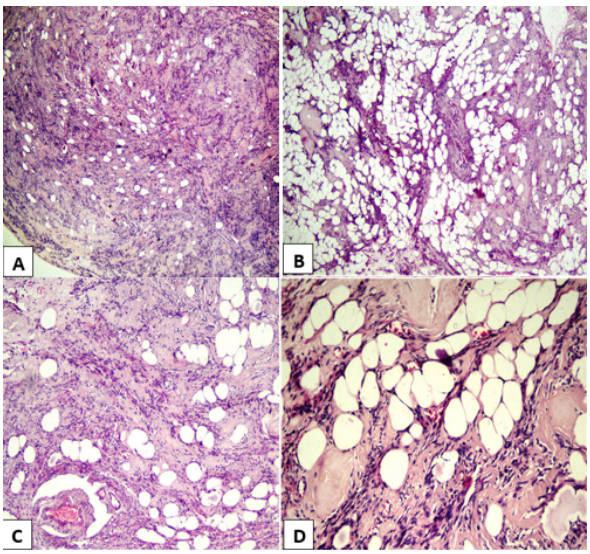


**Fig. 2:** A).Well circumscribed tumor with interlacing fascicles of smooth muscle cells admixed with mature adipocytes; B). Sheets of mature adipocytes along with fascicles of smooth muscle cells; C). Areas of extensive hyalinization and myxoid change; D). High power view showing adipocytes and areas of hyalinization.

## 3. Discussion

Lipoleiomyomas earlier were described as fatty metamorphosis, lipomatous degeneration, hamartoma, and adipose metaplasia. Now regarded as true neoplasm.[1] Histogenesis of these tumors is not clear. Many theories have been proposed which include lipoblastic differentiation of misplaced embryonic fat cells, metaplastic changes of connective tissue or smooth muscles into fat cells and fatty infiltration or degeneration of connective tissue.[3] Many studies have also postulated that a hyperestrogenic state may contribute to the development of lipoleiomyomas. Thus, lipid metabolism alteration associated with menopause may play a role in the development of lipoleiomyoma.[4] Metabolic disorders such as hyperlipidemia, hypothyroidism, and diabetes mellitus have also been observed to occur commonly in these patients. Uterine lipoleiomyoma is typically asymptomatic**.** When symptomatic, patients usually experience symptoms similar to those seen in leiomyomas such as abnormal uterine bleeding, pelvic discomfort, palpable mass, urinary frequency, and incontinence. Lipoleiomyomas most commonly occur in the uterine corpus in an intramural location followed by cervix, retroperitoneum, and broad ligament.[1,5] They usually present as a solitary mass ranging from 0.5 to 55 cm in size with mean size being 5.50 cm. Various imaging modalities such as USG, CT, and MRI can be used to delineate the fatty component of the tumor. The common differential diagnosis of pelvic fatty tumors include benign cystic ovarian teratoma, uterine fatty tumors, pelvic fibromatosis, well-differentiated liposarcoma, carcinosarcoma with heterologous liposarcomatous differentiation and degeneration of leiomyomas.[6]

## 4. Conclusion

Excellent prognosis when asymptomatic, no surgical intervention is usually required. It is important to know this entity to prevent misdiagnosis and in appropriate treatment.

## 5. Conflict of Interest

There is no potential conflict of interests related to the exclusive nature of this paper.

## 6. Source of Funding

No financial support was received for the work on this manuscript.

## References

1. Akbulut M, Gündogan M, Yörükoglu A. Clinical and pathological features of lipoleiomyoma of the uterine corpus: A review of 76 cases. *Balkan Med J*. 2014;31(3):224–29.
2. Nayal B, Somal PK, Rao AC, Kumar P. Uterine lipoleiomyoma: A case report of a rare entity. *Int J Appl Basic Med Res*. 2016;6(2):134–6.

3. Karaman E, Çim N, Bulut G, Elçi G, Andiç E, Tekin M, et al. A Case of Giant Uterine Lipoleiomyoma Simulating Malignancy. *Case Rep Obstet Gynecol*. 2015;doi:10.1155/2015/926961.
4. Akpolat I, Sertcelik A, Cömert S, Bulay O, Ortac F. ERRP-29 and ER staining in uterine lipoma and lipoleiomyoma. *Acta Oncol*. 1996;35:108. doi:10.3109/02841869609098490.
5. Chu CY, Tang YK, Chan TS, Wan YH, Fung KH. Diagnostic challenge of lipomatous uterine tumors in three patients. *World J Radiol*. 2012;4(2):58–62.
6. Kumar S, Garg S, Rana P, Hasija S, Kataria SP, Sen R, et al. Lipoleiomyoma of uterus: Uncommon incidental finding. *Gynecol Obstet*. 2013;3(2):1–2.

## Author biography

**Lav Behl,** Post Graduate Student https://orcid.org/0000-0002-9823-0765

**Neelam Gupta,** Professor and HOD

**Vikas Dubey,** Assistant Professor

**Mehak Kashyap,** Post Graduate Student

**Nechal Kaur,** Post Graduate Student

**Cite this article:** Behl L, Gupta N, Dubey V, Kashyap M, Kaur N. Uterine lipoleiomyoma - An unusual presentation. *IP J Diagn Pathol Oncol* 2021;6(3):231-233.