

## “Lipoleiomyoma of Uterus”



## Medical Science

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### ABSTRACT

*Lipoleiomyomas are uncommon benign neoplasms of uterus and are considered to be a variant of uterine myomas. The incidence varies from 0.03 to 0.2%. Lipoleiomyoma consists of variable proportion of mature adipocytes and smooth muscle cells. These tumors generally occur in asymptomatic obese perimenopausal or menopausal women and usually intramural. We report this case of uterine lipoleiomyoma because of its rarity.*

### INTRODUCTION

**Lipomatous uterine tumors are unusual benign neoplasms.**

[1,2] Histologically, these tumors comprise a spectrum including pure lipomas, lipoleiomyomas and fibrolipomyomas. Lipoleiomyoma is a very rare lesion of the uterus occurring primarily in obese perimenopausal and post menopausal patients. The tumor consists of long intersecting bundles of bland, smooth muscle cells admixed with nests of mature fat cells and fibrous tissue. [2–4] We report a case of lipoleiomyoma that arose in the uterus.

### CASE REPORT

A 60 year old postmenopausal woman presented with increased frequency of per vaginal bleeding, pain abdomen since 6 months. The patient's history revealed that she had attained menarche at the age of 14 years, had regular menstrual cycles of 4–5 days duration and moderate intensity at 28 days interval. She attained menopause 10 years back.

Gynecological examination revealed no abnormalities of the vulva, cylindrical vaginal portion of the cervix and no evident pathological change was detectable with clinical examination. Findings of ultrasonography examination suggested bulky uterus with small hyperechoic mass and there were two small subserosal leiomyomas of 0.5cm diameter each. Both the ovaries showed follicular cysts measuring 3.3 × 3.3 cm each and tubes were normal in appearance.

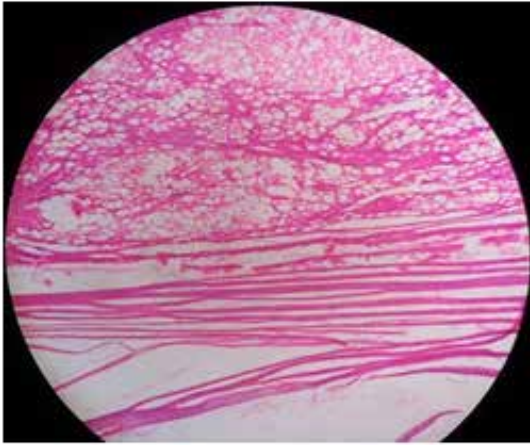
All the standard serological and hematological parameters were within normal range. The patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy because of multiple leiomyomas.

On gross examination of the specimen, the uterus and cervix measured 19x 14x 13 cm. Cut section shows two subserosal leiomyomas each measuring 0.5 cm in diameter and intramural capsulated well circumscribed yellow tissue mass of 10 cm compressing the endometrial cavity. differed from a typical appearance of uterine leiomyoma by being pale yellow and having a somewhat softer consistency on its cut surface [Figure 1]. The other two leiomyomas, each of 0.5 diameter, showed a coarsely whorled pattern with grayish white appearance on their cut surface. The serosal surfaces of the uterus were normal. Ovaries and the fallopian tubes appeared grossly normal.

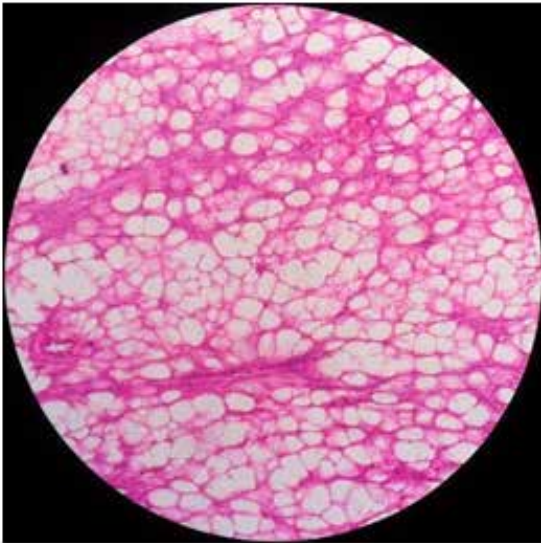


**Figure 1:** Sectioned surface of uterine lipoleiomyoma showing distinct pale yellow appearance

Histological examination of the biggest nodule showed a mixture of adipocytes with spindle-shaped smooth muscle cells arranged in interlacing bundles without nuclear atypia. The nuclei of the smooth muscles were elongated and had finely dispersed chromatin and small nucleoli. Between these muscle cells, a significant amount of fat cells were visible. The adipose component was entirely mature without any lipoblasts [Figures 2,3]. No areas of necrosis & calcification. Based on the above findings, the tumor was diagnosed as a benign lipoleiomyoma of uterus. Sections from the other fibroids showed classical histomorphology of uterine leiomyomata. The endometrium showed changes of simple hyperplasia without atypia. Sections from both the ovaries and fallopian tubes being unremarkable histologically.



**Figure 2:** Well-circumscribed lesion show adipocytes admixed with spindle-shaped smooth muscle cells without nuclear atypia arranged in interlacing (H and E, ×10)



**Figure 3:** Smooth muscle cell proliferation admixed with mature adipocytes (H and E, ×100)

## DISCUSSION

Lipoleiomyoma is an unusual benign fatty tumor of uterus. Myolipoma of soft tissue was firstly described in 1991 by Meis and Enzinger. These tumors showed characteristic histological findings, being composed of benign smooth muscle and mature adipose tissue. Similar tumors in the uterus are known as lipoleiomyomas.[5] Lipoleiomyomas occur in different locations including cervix and ovaries.[2] It is suggested that lipoleiomyomas result from fatty metamorphosis of uterine smooth muscle cells which can proceed to form localized or diffuse mature adipocyte tissue in leiomyoma or in the myometrium rather than fatty degeneration.

In the literature these tumours generally occur in asymptomatic, obese peri menopausal or menopausal women.[1,6-8] An incidence of approximately 0.28% of all leiomyomas' and 0.39 % of all hysterectomies' specimens was reported from National Taiwan University Hospital between January 1994 and December 1998 by K.C.Lin et al who analyzed 2878 leiomyomas cases and 2071 hysterectomies specimens.[1]

The differential diagnosis includes benign pure lipoma of uterus, angiomyolipoma of uterus, leiomyosarcoma, leiomyoma with fatty degeneration, and association of lipomatous uterine tumors and endometrial carcinomas with lipoleiomyosarcoma arising in uterine lipoleiomyomas has been reported.[6]

The pathogenesis remains obscure. Immunocytochemical studies confirm the complex histogenesis of these tumors, which may arise from mesenchymal immature cells or from direct transformation of smooth muscle cells into adipocytes.[1,4,7,8] A number of various lipid metabolic disorders or other associated conditions, which are associated with estrogen deficiency as occurs in perimenopausal or post menopausal period, possibly promote abnormal intracellular storage of lipids.[1]

Lipoleiomyomas when asymptomatic require no treatment and are clinically similar to leiomyomas.

In conclusion, lipoleiomyomas are uterine benign tumors and review of previous case reports together with the condition of our patient reveals that patients with lipoleiomyoma are often overweight and perimenopausal. that do not directly affect mortality. Though imaging plays an important role in preoperative diagnosis and localization of the lipoleiomyoma, it is the final pathological examination that confirms the diagnosis.

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