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Case Report

LIPOLEIYOMYOMA OF THE UTERUS – A CASE REPORT AND REVIEW OF THE LITERATURE

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ABSTRACT
Lipoleiyomyoma of the uterus is a rare benign uterine tumor. It is typically found in post menopausal women and is associated with conventional leiyomyomas. It is most common in uterine corpus and usually intramural. Rare sites of occurrences include uterine cervix and broad ligament. We report a case of lipoleiyomyoma in a 42 years old woman who presented with complaints of lower abdominal pain and menorrhagia.

Keywords: *Uterine Leiomyoma – Lipoleiomyoma*

INTRODUCTION
Primary lipomatous tumours of uterus are rare and are benign in behaviour. The spectrum of these tumours range from pure lipoma composed only of mature fat cells to lipoleiyomyoma, angiomyolipoma, fibrolipoma depending on the presence of components such as adipose tissue, smooth muscles and fibrous tissue. Malignant neoplasms like liposarcoma or lipoleiomyosarcomas are very rarely reported. Lipoleiyomyoma was once considered as hamartoma or choristoma, but now is postulated to arise from metaplasia of perivascular pluripotent mesenchymal cells or by direct metaplasia of the smooth muscle cells of leiyomyoma to adipocytes. Other theories for histogenesis include origin from misplaced embryonic fat cells, direct metaplasia of smooth muscle or connective tissue into fat cells, proliferation of perivascular fat cells, inclusion of fat cells into the uterine wall during surgery or fatty infiltration or degeneration of connective tissue.

Figure 1: Shows well circumscribed, solid, grey-white to yellow tumor

CASE

A 56 years old female presented with complaints of pain abdomen for 2 months which was dull aching and non radiating in nature. MRI pelvis showed a well defined, heterogenous lesion arising from left fundal, lateral wall of uterus measuring 6.3x6.2x6.1cm. A trans-abdominal hysterectomy with bilateral salpingo-ophorectomy was done and specimen was sent for HPE.

Pathology

***Gross*:** Uterus measured 10x8x5 cm with endocervical canal containing a polyp measuring 2x1.5x0.5 cm, projecting into the cervical os. Endometrium was filled with clear fluid. Myometrium showed a circumscribed mass of 7cm, which was solid, firm, grey-white to yellow in color with whorled appearance (Fig.1). Uterine adnexae did not show any significant pathology.

Microscopic Examination: H & E stained sections from the mass showed intersecting, haphazardly arranged, long spindle shaped cells, intermingling with lobules of adipocytes (Fig.2). Nuclei of spindle cells were elongated, blunt ended and showed no atypia or increase in mitotic activity. Adipocytes were seen separated by thin fibrovascular stroma. Nuclei of adipocytes were inconspicuous and eccentrically located.

Additional histological features included adenomyosis, endocervical mucinous polyp causing hydrometra.

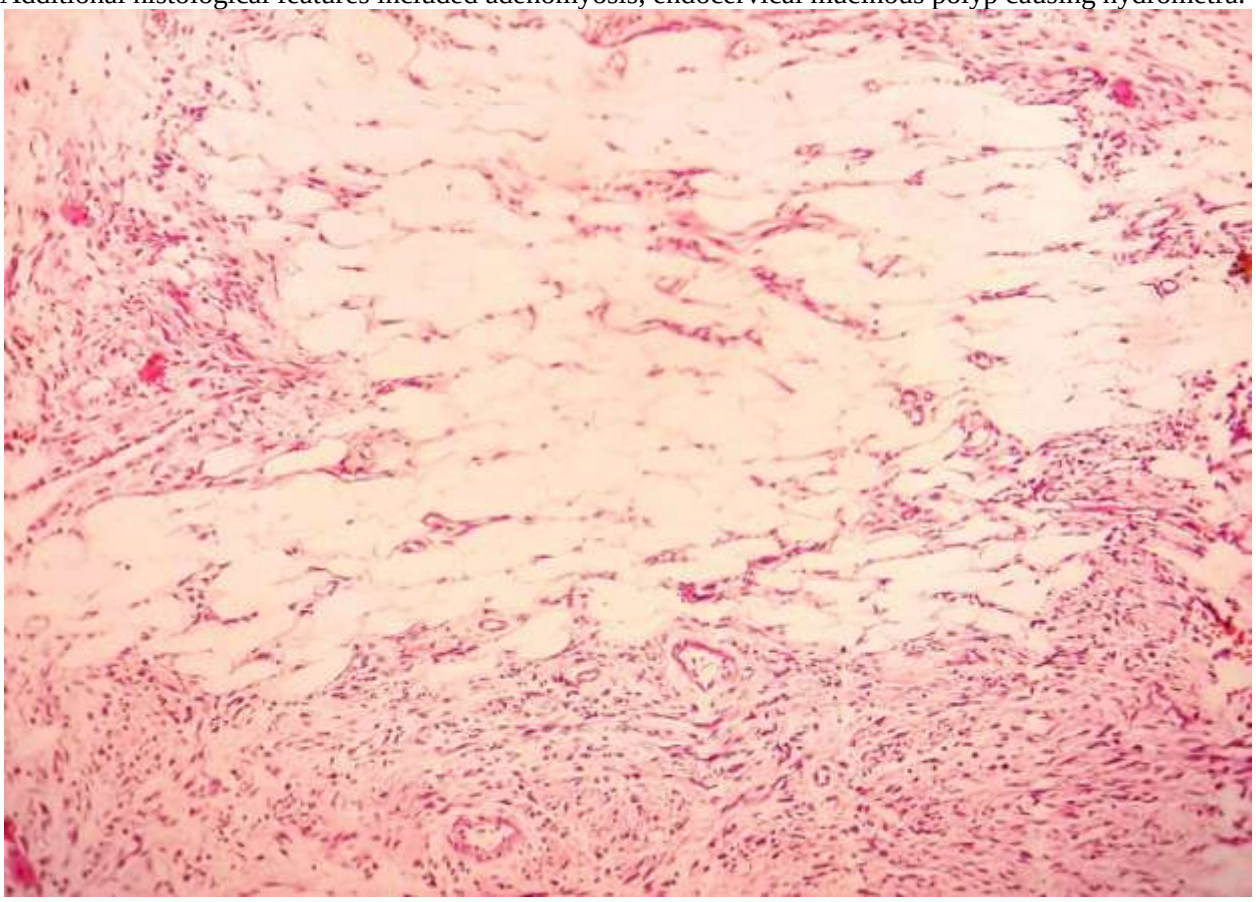

Figure 2: H & E. x 20. Shows bundles of smooth muscles separated by lobules of adipocytes.

DISCUSSION

Lipoleiomyoma is a rare variant of leiomyoma with fat metamorphosis of smooth muscle cells into fat cells. They are benign tumors of the uterus that do not cause much morbidity or mortality. Incidence of lipoleiomyoma ranges from 0.03% in hysterectomy specimens to 0.20% amongst uterine leiyomyomas (Brandfass and Everts-Suarez, 1955). Usually lipoleiyomyoma occurs in post menopausal women in the

age group of 50-70 years with clinical symptoms presenting as pelvic discomfort, heaviness, pressure & vaginal bleeding. It has also been reported to occur in metabolic diseases including hyperlipidemias, hyperthyroidism & diabetes mellitus (Akbulat *et al.,* 2014).

A preoperative diagnosis is possible with radiological imaging, because of its fat content. USG being inexpensive and least invasive is preferred imaging tool for diagnosis of the initial evaluation after bimanual examination. MRI is also an important imaging tool for precise identification, number & location of tumors as well as for differentiation. Though imaging plays an important role in preoperative diagnosis and localization of the lipoleiyomyoma, it cannot differentiate benign from malignant fatty lesion, for which histopathological examination is mandatory (Karaman *et al.,* 2015). The commonest differential diagnosis for pelvic fatty tumors include benign cystic ovarian teratoma, uterine lipoma, lipoleiomyoma, liposarcoma, lipoleiomyosarcoma, pelvic fibromatosis, carcinosarcoma with liposarcomatous component (Akbulat *et al.,* 2014).

Grossly it usually presents as a well circumscribed mass enclosed within a thin connective tissue capsule. It is mostly located in the posterior wall of uterine corpus and is usually intramural. It may be single or multiple, measures 5-10 cm, but can range from few mm to approximately 30 cm in size.

Histologically, they contain bland smooth muscle cells, lobules of adipocytes and fibrous tissue in varying proportions. Histological differential diagnosis of lipoleiyomyoma includes angiolipoma, angiomyolipoma, atypical lipoma and liposarcoma.

Though uterine body is the commonest site for uterine lipoleiomyoma, it had been reported to occur in uterine cervix (El-agwany, 2014) and broad ligament rarely. They may be associated with adenomyosis, endometriosis, endometrial hyperplasia and polyps (Akbulat *et al.,* 2014). Our case was found to be associated with adenomyosis and endocevical mucinous polyp.

The established mode of treatment for this condition include follow-up as expectant therapy, surgery, medical or hormonal treatment, myolysis and uterine artery embolisation. Treatment should be individualized according to many factors such as the patient age, fertility status, severity and the type of symptoms, suspicion of malignancy, location & size of the lesion & consent of patient.

CONCLUSION

The case is presented for its rarity. The clinical, radiological and histological features are reviewed with the literature. The associated clinical and histological conditions and the various treatment modalities are enlisted.

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