



LIPOLEIOMYOMA OF UTERUS AND CERVIX -A RARE ENTITY

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ABSTRACT

Lipoleiomyomas are rare benign neoplasms of uterus and cervix and they are considered to be a variant of uterine myomas. They consist of variable proportion of mature adipocytes and smooth muscle cells. These tumors generally occur in asymptomatic obese perimenopausal or postmenopausal women.

We report this case of uterine lipoleiomyoma in a 60-year-old female who presented with abdominal pain, bleeding and utero-vaginal prolapse, her hysterectomy was done and the histopathology of myometrium and cervix showed mature adipocytes along displaying features of lipoleiomyoma.

KEYWORDS : adipocytes, leiomyoma, myomas, uterus**INTRODUCTION**

Leiomyomas of the uterus are extremely common neoplasms with incidence of 4 to 11% however lipoleiomyoma is an extremely rare benign tumor of uterus arising mainly in the uterine corpus even though only few cases of cervical lipoleiomyoma reported in the literature [Josephine 1].

They are unusual benign neoplasms. Histologically, these tumors comprise a spectrum including pure lipomas, lipoleiomyoma and fibrolipomyomas (Hanumanth 2).

These lesion occur primarily in obese perimenopausal and post-menopausal patients consisting of long intersecting bundles of bland, smooth muscle cells admixed with nests of mature fat cells and fibrous tissue (Hanumanth 2).

It also includes neoplasms composed entirely of mature adipocytes May be due to adipose metaplasia in leiomyomas; does not appear to be degenerative, since adipose tissue has low proliferative activity by Ki67 staining (3).

Lipoleiomyoma of Uterine Cervix is an extremely uncommon morphological variant of cervical leiomyoma (or leiomyoma of uterine cervix). The tumor is diagnosed histologically by a pathologist by observing a tumor specimen under the microscope (4)

Some of the lipoleiomyoma tumors may appear like hibernomas or chondroid tumors. In rare cases, there may be the presence of cartilage, bone, and muscle cells in the tumor. A lipoleiomyoma is the Lipomatous variant of a leiomyoma (4)

Lipoleiomyoma of Uterine Cervix may be found in adult women. The tumors are generally painless and do not show any signs and symptoms in many cases. Some women may have pelvic pain and heavy bleeding during menstruation. Large tumors sizes can cause signs and symptoms due to compression of adjoining organ structures (5).

CASE REPORT

A 60-year-old female presented with complaints of something come out of vagina since 2 months (Utero-vaginal prolapse third degree).

Post-menopausal since 15 years and tubal ligation done 35 years back.

USG Abdomen and Pelvis– suggestive of uterus measuring 59x47x32mm with calcific specs- age related with well-defined hyperechoic lesion noted at sub serosal region at posterior wall measuring 22x18mm suggestive of Lipoleiomyoma.

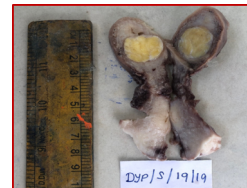
Clinical diagnosis – 3 rd degree utero-vaginal prolapse.

Treatment- Hysterectomy was done

Grossly we received a uterus and cervix measuring 12x4.5x3cm without bilateral adnexa.

Uterus measured 4.5x4x3 cm with cut surface displaying single yellowish white intramural fibroid measuring 2 cm displaying the whorling pattern.

Cervix measures 6cm in length and cut section shows displaying nabothian cyst.



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Figure 1:- Gross showing single yellowish white area noted in the myometrium.

Microscopy of cervix revealed well circumscribed leiomyoma displaying hyalinsation at periphery admixed with areas of mature adipocytes and features of hypertrophic cervicitis with nabothian cyst.

Endometrium show features of senile cystic atrophy and myometrium showed a well circumscribed leiomyoma with hyalinsation in periphery and loose area of adipocytes in the central area.

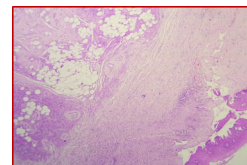


Figure 2:- H&E showing ectocervical lining epithelium with leiomyoma and mature adipocytes (H&E 10x)

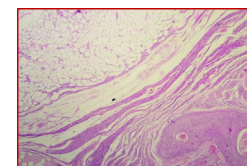


Figure 3:- Showing lipoleiomyoma in the myometrium (H&E 10x)

DISCUSSION

In 1916, Lopstein first described lipoleiomyoma, but this received little attention in the literature (6). Its lack of specific histological features led the researchers underestimate its occurrence (6).

The largest reports in the literature belong to Wang et al with 50 cases and Aung et al with 17 cases. Willen and Pounder designated these tumors as "uterine fatty tumors" and subdivided them into "lipoma" and "mixed lipoma/leiomyoma" (lipoleiomyoma) (6).

They are unusual fatty tumor. Myolipoma of soft tissue was firstly described 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. [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 (2).

Modern research rejects the view that these tumors are hamartomas, choristomas, fatty metamorphosis, or Lipomatous degeneration. They probably represent tumor metaplasia within a leiomyoma (6).

They most commonly grow in the uterine corpus at the subserosal or intramural levels however, it has been reported at other sites, including the cervix as well as in intraligamentary, peritoneal, and ovarian areas (2).

Uterine leiomyomas are extremely common neoplasms with a quoted incidence of 4-11% and mainly seen (40%) in women over 50 years [Sudhamani.57]

Many variants which are the result of secondary changes have been described and are detectable in around 65% of cases (7).

The clinical presentation is non-specific, and these tumors generally occur in asymptomatic obese perimenopausal or menopausal women. [7].

The most common signs and symptoms are abnormal uterine bleeding, abdominal and/or pelvic pain, palpable mass, urinary frequency, incontinence and a sensation of pressure similar to those of typical leiomyomas (6).

The mean ages of the patients in the series of Wang et al and Aung et al were 53.9 and 59.9 years, respectively. Lipoleiomyomas may rarely be multiple, but often are single, with variations in size (6).

Most of them are postoperative chance findings and the diagnosis is made in retrospect. It is often diagnosed preoperatively as leiomyoma or ovarian mature teratoma. Computed tomography (CT) and magnetic resonance imaging (MRI) can assist in the preoperative diagnosis of these lesions (2).

The differential diagnosis of lipomatous tumour in pelvic region includes benign cystic teratoma of ovary, uterine lipomas, spindle cell lipoma, angioliipoma, angiomyolipoma & well differentiated liposarcoma (3).

Association of lipomatous uterine tumors and endometrial carcinomas with lipoleiomyosarcoma arising in uterine lipoleiomyomas has been reported. [2]

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. [2].

A number of various lipid metabolic disorders or other associated

conditions, which are associated with estrogen deficiency as occurs in peri or post-menopausal period, possibly promote abnormal intracellular storage of lipids. [2]

Cervical lipoleiomyoma are rare than uterine lipoleiomyomas. They frequently occur in perimenopausal or postmenopausal women. Although radiological investigation aids in diagnosis, histopathological examination establishes the diagnosis (3).

Lipoleiomyomas when asymptomatic require no treatment and are clinically similar to leiomyomas. So, it is important to differentiate these tumors from ovarian teratoma, which requires surgical excision. Lipoleiomyomas are benign tumors of the uterus that do not affect mortality (2).

Though imaging plays an important role in preoperative diagnosis and localization of the lipoleiomyoma, it is the final pathological examination that confirms the diagnosis (1).

CONCLUSION

Uterine Lipoleiomyomas are benign uterine lesions they represent a variant of leiomyoma with adipocyte differentiation rather than a degenerative or neoplastic change in ordinary leiomyoma.

They show a favorable outcome. However, the pathogenesis and clinical significance of these rare neoplasms are still not clarified.

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