

Uterine Lipoleiomyoma in a Premenopausal lady: Rare Presentation of an Uncommon Entity

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Abstract: Lipoleiomyoma is one of the rarest benign neoplasms of uterus; reported incidence is under 0.2%. It is often regarded as a variant of the commoner tumor, leiomyoma. It can mimic lipomatous tumours radiologically due to presence of variable amount of fat intermixed with smooth muscles and may pose diagnostic challenge. Clinically it is indistinguishable from other benign uterine neoplasms. This uncommon tumor is usually recognized during routine histopathological examination of hysterectomy or myomectomy specimens. Most reported cases are women in pre- and post-menopausal age groups. Only about 10% cases are under 40 years. Here we report a case of lipoleiomyoma of uterus in a 37 year old lady presented with irregular uterine bleeding, diagnosed incidentally on histopathological examination of the hysterectomy specimen. We report this rare entity for its unusual age at presentation.

Keywords: Lipoleiomyoma, Leiomyoma, Irregular uterine bleeding, Benign

INTRODUCTION

Lipoleiomyoma is an uncommon variant of the commonest benign uterine tumor, leiomyoma [1]. It is thought to arise due to phenotypical switch or fatty metamorphosis of the smooth muscle cells of leiomyoma. Lipoleiomyoma also comes under the spectrum of benign lipomatous tumours [2]. Most cases are asymptomatic, though patients sometimes present with clinical features similar to other benign uterine neoplasms [3]. It is extremely uncommon under 40 years [4]; though itself a rare entity, lipoleiomyoma usually occurs in peri- and post-menopausal obese females [2]. Here we present a case of uterine lipoleiomyoma in a 37 year old lady.

CASE REPORT

A 37 year old woman (G₂P₂₋₀₋₀₋₂) presented to gynaecological outpatient department of our institute with irregular uterine bleeding & vague pelvic discomfort for 6 months. Patient's menstrual history revealed menarche at 12 years; a regular 31 day cycle with 3-5 days period with moderate bleeding prior to the onset of symptoms. Last child birth was ten years back by lower segment caesarean section. Per

abdominal examination revealed a vaguely palpable lump in the suprapubic region. Ultrasonography suggested myoma of uterus. The patient underwent abdominal hysterectomy without salpingo-oophorectomy.

Grossly, the uterus measured 14X9X7cm. Cervix was 3.5cm in length with features of erosion. Endometrial canal measured 4.5 cm. Serial slicing of the uterus revealed a well circumscribed homogenous grey white tumor mass measuring ~7X6.5X5 cm, occupying the upper part of uterus (Fig. 1a). Cut surface of the tumor was predominantly whitish with focal areas of yellowish discoloration and whirling in some places. On microscopy, the tumor was composed of bland, spindle-shaped smooth muscle cells arranged in short fascicles, whorls and intricately intermixed with numerous mature adipocytes (Fig. 1b, 1c). The nuclei of the smooth muscle cells were oval to spindle with evenly dispersed chromatin and inconspicuous nucleoli without any atypia. Based on the gross finding and histomorphology, a diagnosis of lipoleiomyoma was offered. Endometrium and cervix was within normal histological limits.

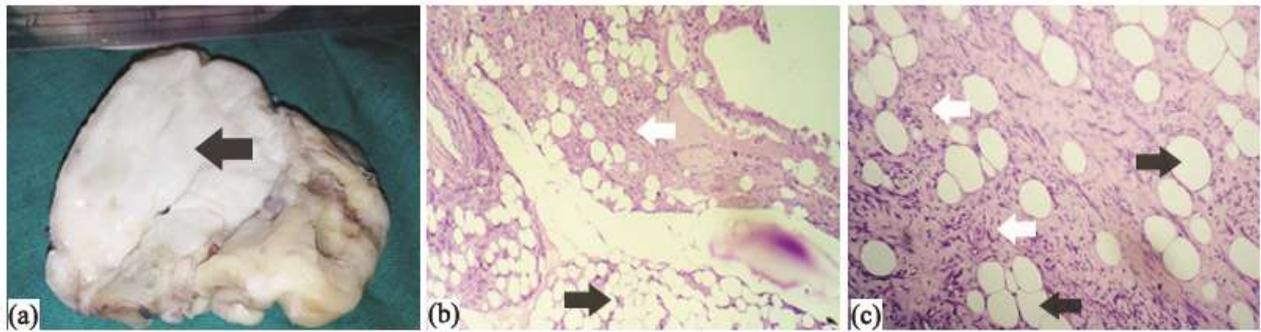


Fig. 1(a): Gross Photograph: Cut surface of uterus showing grey-white homogenous tumor (black arrow) occupying the upper half

Fig. 1(b): Short fascicles of spindle tumor cells (white arrow) intermixed with numerous adipocytes (black arrow) (Haematoxylin & Eosin stain, 40X)

Fig. 1(c): Collections of large mature adipocytes (black arrow) in between fascicles of spindle tumor cells (white arrow) (Haematoxylin & Eosin stain, 100X)

DISCUSSION

Lipoleiomyoma is a rare benign tumor of uterus, with incidence of 0.03%-0.2%, in reported literature [1, 5]. It also represents a sub group of rare benign uterine neoplasms, namely, the uterine lipomatous tumours, which cover the spectrum of pure lipomas, lipoleiomyomas and fibrolipomyomas, depending on the relative amount of adipose tissue, smooth muscle cells, fibroblasts and collagen [1, 5]. Clinical presentation of lipoleiomyoma is identical to the common benign tumours; abnormal uterine bleeding and/or palpable pelvic mass with or without pain [3, 6]. Mean age at presentation is usually more than 50 years and 90% of patients are older than 40 years of age [3, 4].

Uterine lipoleiomyomas are most commonly found in an intramural location in the body of uterus [7]. These tumours have also been reported in cervix and very rarely in ovary [8]. The soft tissue counterpart, 'Myolipoma', was first described by Meis and Enzinger in 1991 [9]. This group of tumours are characteristically composed of benign smooth muscle cells admixed with mature fat cells. The cells in these smooth muscle tumours are thought to be a result of fatty change in the smooth muscle cells. This abnormal intracellular accumulation of lipids may be related to various defects in lipid metabolism, which are commonly encountered in peri- and post-menopausal women with an estrogen deficient state [3, 10]. This may be considered as the possible explanation regarding the common age of presentation of this rare tumor. However, a relatively younger age of the present case might suggest that estrogen and other female hormones possibly play only a partial role in the pathogenesis of these tumours.

Imaging findings of lipoleiomyoma often mimics other pelvic tumours, including lipoma, teratoma, and liposarcoma [11]. A definitive preoperative diagnosis is difficult with imaging, and

only histopathology holds the key to diagnosis of these lesions.

Management of lipoleiomyoma is similar to that of leiomyoma. Asymptomatic cases usually do not need any treatment. The symptomatic ones are generally managed with hysterectomy, as most of the cases are peri- or post-menopausal. Biological behaviour of lipoleiomyoma is purely benign, has a favourable prognosis [3, 4]; though malignant transformation is rarely described in literature [12].

CONCLUSION

Lipoleiomyoma is a rare neoplasm of the uterus; mimics commoner tumors of that site, both clinically and radiologically. Histopathology is considered as the gold standard for a definitive diagnosis of this rare entity.

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