Case Report

Cervical lipoleiomyoma in premenopausal woman: a rare case report.

Dipti Agrawal*, Sunita Fotedar, Rekha Daral, Kalpana Kumar

Department of Gynecology & Obstetrics, Swami Dayanand Hospital, Delhi, India

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Abstract

Lipoleiomyoma is a rare benign tumor and predominantly located in the uterus with an estimated incidence of 0.03% to 0.2%. Lipoleiomyoma usually occur in uterine corpus, predominantly intramurally, less commonly subserosal and submucosal. Clinical manifestations of lipoleiomyoma are identical to those of uterine leiomyoma. Histologically lipoleiomyomas consist of spindle-shaped smooth-muscle cells in a whorled pattern admixed with varying amounts of mature adipose tissue.

We report here a rare case of cervical lipoleiomyoma which was misdiagnosed as cervical polyp in a 38 year-old woman who had continuous per vaginal bleeding for three and half months.

***Corresponding author:**
Dr. Dipti Agrawal, Department of Gynecology & Obstetrics, Swami Dayanand Hospital, Dilshad Garden, Delhi-110095, India
Phone: +91-9718651169; E-mail: drdipti.goyal@yahoo.in,

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Introduction

Lipoleiomyoma is a rare benign tumor and predominantly located in the uterus with an estimated incidence of 0.03% to 0.2%.[1] It most frequently occurs in obese perimenopausal and postmenopausal women. Most of the reported cases of lipoleiomyoma have been retrospectively diagnosed after surgery, with some being pre-operatively misdiagnosed as ovarian tumor.[2]

We report here a rare case of cervical lipoleiomyoma which was diagnosed in a 38 year-old premenopausal woman who had continuous per vaginal bleeding for three and half months. This case is being reported because of its rarity and rare presentation.

Case Report

A 38-year-old, premenopausal female, P3G3A0 with tubectomy done 15 year back, presented with chief complaint of continuous per vaginal bleeding with average flow (4-5 pads/day) since three and half months in department of gynecology. The menstrual history revealed menarche at the age of fifteen year, regular menstruations of 3-4 days duration and average flow at 28 days intervals. She gave birth 3 times at hospital, last delivery 14 year back. Family history was not significant. There was no history of diabetes, hyperlipidemia, hypertension, thyroid disorder, other endocrine disorders and coagulopathy.

A general physical examination and per abdomen examination did not detect any abnormalities. Per speculum examination showed cervical polyp-like mass of around 4 cm in diameter, and protruding through external cervical os.

Routine biochemical, hematological investigations including coagulation profile were within normal limits. Pelvic ultrasound (USG) showed normal sized, anteverted uterus with 7mm thickness of endometrium. A hypoechoic lesion of 20x25 mm was seen. Both ovaries were normal in size, position and echopattern. USG of pelvis was suggestive of cervical polyp.

Patient was admitted with a preliminary diagnosis of cervical polyp for polypectomy or hysterectomy, if required. During operation, it was found to be difficulty in polypectomy because cervical os was not visiualized. After consultation with the patient, we decided to proceed with total abdominal hysterectomy with right salpingo-oophorectomy as right ovary was slightly enlarged. Specimen sent to pathology department for histopathological examination.

On gross appearance of the specimen, the utero-cervix measured 11x5x4 cm and solid, ovoid cervical mass measured 5x4x3 cm attached with whole cervical lip (Figure 1). On serial cut sections, mass showed pale yellow to gray-brownish areas and was soft to firm in consistency (Figure 2). No area of necrosis and hemorrhage were seen. The uterus and right adenexa was macroscopically normal.

Figure 1: Gross specimen showing well circumscribed cervical mass, attached with whole cervical lip.

Figure 2: On serial cut sections, mass showed pale yellow to gray-brownish areas and soft to firm in consistency.

Microscopically, the sections from the cervical tumor showed mixture of bland, spindle-shaped smooth muscle cells in whorled pattern with scattered mature adipocytes (Figure 3,4). Cytological atypia, necrosis, and calcification were not seen. Sections from endometrium, cervix and right fallopian tube were unremarkable and right ovary showed corpus albicans. On histopathological findings, the tumor was diagnosed as a benign cervical lipoleiomyoma.

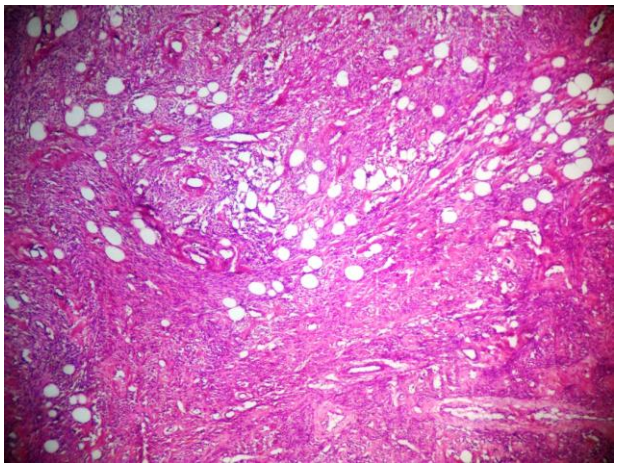

Figure 3: Histopathologic section showing the tumor composed of spindle-shaped smooth muscle cells in a whorled pattern with mature adipocytes (H&E stain, x40).

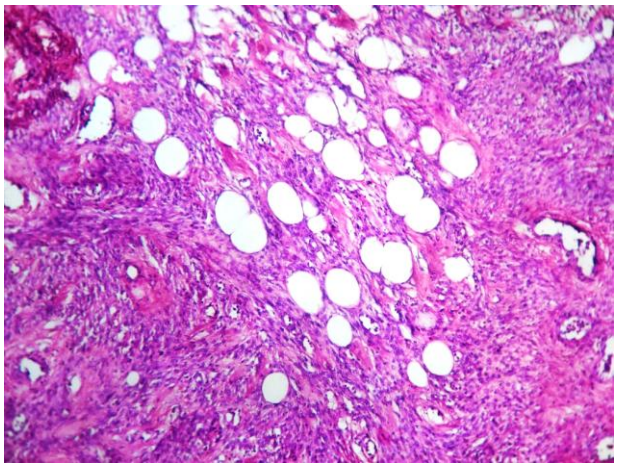

Figure 4: Histopathologic section showing the tumor composed of spindle-shaped smooth muscle cells in a whorled pattern with mature adipocytes (H&E stain, x100).

Discussion

Uterine leiomyomas are extremely common neoplasm with a incidence of 4-11% while lipoleiomyomas are extremely rare neoplasm (with incidence of <0.2%).[3] Lipoleiomyoma is an alteration that was previously called as fatty metamorphosis, lipomatous degeneration, adipose metaplasia, etc. It is now regarded as a distinct true neoplasm.[4]

Lipoleiomyoma usually occur in uterine corpus, predominantly intramurally, less commonly subserosal and submucosal.[4,5] Lipoleiomyoma may be found in cervix as in our case.[2,4,5] Lipoleiomyomas most frequently occur in perimenopausal and postmenopausal women while in literature, only few cases are reported in premenopausal woman as in our case.[2] Concomitant multiple uterine leiomyoma is commonly found, although this is not present in all patients, including ours.[6]

Most patients are asymptomatic while some patients presented with clinical features such as a palpable pelvic mass, pelvic pain, urine frequency or retention, constipation, abnormal vaginal bleeding, etc. similar to those caused by leiomyomas.[2] These are related to the size and location of the lesion.

On USG, the lesion is echogenic and is usually partially encased by a hypoechoic rim. The hypoechic rim is thought to represent a layer of myometrium surrounding the fatty component. However, ultrasound findings are not specific to the diagnosis.[7] Computed tomography (CT) and magnetic resonance imaging (MRI) findings are more specific and can assist in the preoperative diagnosis of these lesions.[4,8] Though imaging plays an important role in preoperative diagnosis and exact location of a lipoleiomyoma, it is the final pathological examination that confirms the diagnosis.

Histologically, lipoleiomyomas consist of spindle-shaped smooth-muscle cells in a whorled pattern admixed with varying amounts of mature adipose tissue, which do not show cytological atypia.[9,10] The amount of adipose component varied from 5 to 95% of the tumor mass. The histological differential diagnosis of similar uterine tumors with adipose tissue and spindle cells include; spindle cell lipoma, angiolipoma, angiomyolipoma, myelolipomas, atypical lipoma, and well-differentiated liposarcomas.[4] Because fat tissue is not native to the myometrium, various theories have been proposed for the histogenesis of these tumors.

Treatment of lipoleiomyoma is similar to leiomyoma. Usually asymptomatic lipoleiomyoma requires no treatment. Management of these fibroids is usually by hysterectomy especially for central cervical fibroids. Uterine artery embolization and myomectomy can be performed depending on patients' symptoms, fertility desire, the site of the mass, and associated uterine fibroids.[11] Cervical leiomyoma gives rise to greater surgical difficulty by virtue of their relative inaccessibility and close proximity to urinary bladder and uterus as in our case. So, we decided to perform the abdominal hysterectomy.

Conclusion

Radiological investigation may be helpful in preoperative diagnostics of lipoleiomyoma. The final diagnosis is established on the basis of a histopathological examination of excised tumor. It most frequently occurs in perimenopausal and postmenopausal women but can occur in premenopausal women.

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Competing Interests
None declared.

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