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Case Report

A case of large cervical lipoleiomyoma simulating malignancy: an intraoperative dilemma

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ABSTRACT

Primary lipomatous tumors of the uterus are very unusual benign neoplasms with an incidence of 0.03% to 0.2%. Most commonly described in the uterine corpus, lipoleiomyomas (LLM) have been reported in cervix, broad ligament and retro peritoneum. Here we report a case of perimenopausal women with cervical LLM which was highly friable simulating cervical malignancy, creating an intraoperative dilemma. A 45 year old perimenopausal woman presented with severe abdominal pain with difficulty in passing urine and motion, excessive bleeding per vaginum with increased frequency of menses, since 6 months. Ultrasonography revealed a well-defined rounded to oval heterogeneous hyperechoic lesion with minimal vascularity measuring 10.4×11.0×7.7 cm, volume-469 cc, probably arising from anterior lip of cervix. Patient was taken for laparotomy. Intraoperative friability and vascularity of the mass was suggestive of malignancy. LLM, if asymptomatic, requires no treatment. But symptomatic cases require surgical management.

Keywords: Lipoleiomyoma, Leiomyoma, Uterus, Cervix

INTRODUCTION

Primary lipomatous tumors of the uterus are very unusual benign neoplasms with an incidence of 0.03% to 0.2%.^{1,2} Most commonly described in the uterine corpus, lipoleiomyomas (LLM) have been reported in cervix, broad ligament and retro peritoneum. Leiomyoma is the most common benign tumor of cervix.

A cervical myoma is usually solitary in contrast to uterine myomas. Most of the patients are asymptomatic but some experience symptoms such as pelvic discomfort, heaviness and vaginal bleeding.

Here we report a case of perimenopausal women with cervical LLM which was highly friable simulating cervical malignancy, creating an intraoperative dilemma.

CASE REPORT

A 45 year old perimenopausal woman presented with severe abdominal pain with difficulty in passing urine and motion, excessive bleeding per vaginum with increased frequency of menses, since 6 months. The patient's history revealed that six months before she had only pain in abdomen during menses. She had two full term cesarean section (CS). Her last child birth was 10 years back. She was known case of hypothyroidism and took medication for the same since last 5 years.

On physical examination her vitals were normal, abdomen was soft with pfannenstiell scar of previous CS. On per speculum examination cervix was not visualized, drawn high up. On per vaginum examination, hard lump about 8×8 cm occupying upper one third of vagina felt.

Uterus could not be felt separately from the lump. On per rectal examination large lump solid in consistency felt, overlying rectal mucosa was free. Pap smear was negative for malignant cells.

Ultrasonography revealed a well-defined rounded to oval heterogeneous hyperechoic lesion with minimal vascularity measuring 10.4×11.0×7.7 cm, volume-469 cc, probably arising from anterior lip of cervix (Figure 1a). Doppler imaging revealed high resistant blood flow in the mass that excluded malignancy. Uterus was 7.3×6.6×4.8 cm in size sitting over the mass with normal endometrium. Bilateral tubes and ovaries were normal.

All the standard serological and hematological parameters were within normal range. Patient was taken for laparotomy. Bladder was densely adherent to the previous lower segment cesarean section (LSCS) scar site (Figure 1b). Cervical mass was deeply impacted in pouch of Douglas and encroaching lateral pelvic walls. Bilateral ureteric dissection was done. Bladder was separated with difficulty by sharp dissection. Rectum dissection was difficult as the mass was deeply impacted. After bilateral uterine artery ligation, we tried to remove myoma en bloc but it was friable and so it came out in pieces (Figure 1c). This friability and vascularity of the mass was suggestive of malignancy. We don't have frozen section facility so we did imprint cytology and no malignant cells were seen. We proceeded with hysterectomy with left salpingo oophorectomy and right salpingectomy. Right ovary was normal and left in situ. Intraoperative blood loss was about 500 ml and one unit of blood transfusion was given post-operatively. Patient was discharged on 5th post-operative day. Patient is doing well in follow-up.

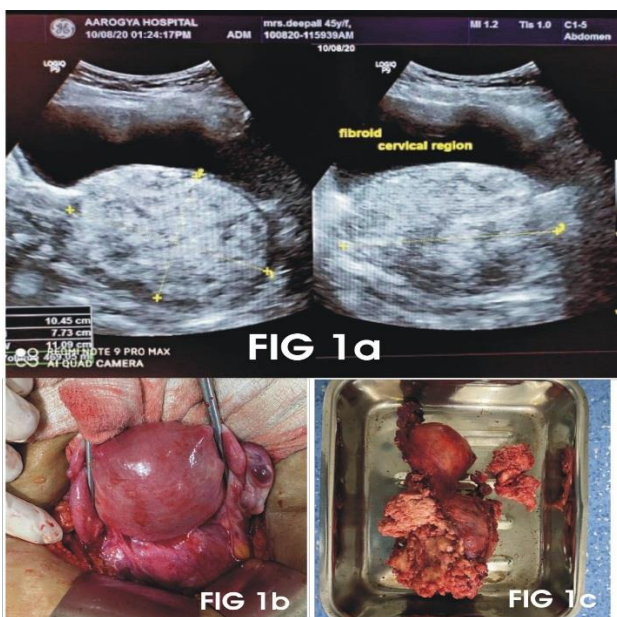


Figure 1: (a) Well defined rounded lesion on USG, (b) adherent bladder to previous scar and (c) tumor tissue removed piecemeal.

Macroscopically, pathologic examination revealed a solid mass measuring 12×11.5×13 cm showing the appearance of leiomyoma and partly encapsulated. The microscopic examination (Figure 2 a, b) showed lipoleiomyoma arising from anterior lip of cervix without histologic signs of malignancy.

On immunohistochemistry (IHC) spindle tumor cells showed diffuse positivity for smooth muscle actin (SMA) (Figure 2c), desmin and diffuse, strong positivity for H-Caldesmon (Figure 2d). S-100 protein positivity in adipocytes only (Figure 2e). The Mib-1 labelling index was limited to one percent (Figure 2f). The findings were consistent with lipoleiomyoma. The uterus, endometrium and adnexal structures were unremarkable.

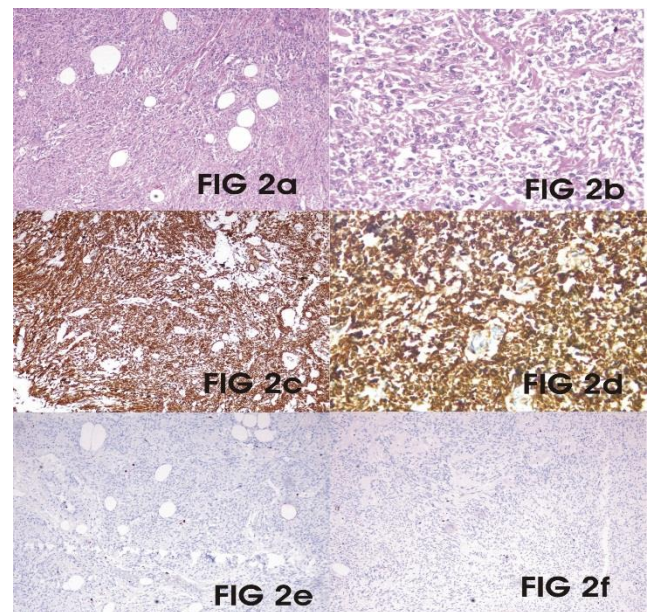


Figure 2: (a-b) H&E stain showing smooth muscles and adipocytes, (c) SMA, (d) H. Caldesomon, (e) S 100, and (f) Mib-1.

DISCUSSION

Majority of the patients with LLM are post-menopausal predominantly in their 50s and 60s and are usually asymptomatic.^{3,4} Our patient was perimenopausal and had abnormal uterine bleeding, pain in abdomen and difficulty in urination. LLM are associated with metabolic disease including hyperlipidemia, hypothyroidism and diabetes mellitus. Our patient had hypothyroidism and obesity. The size may vary from few mm to 32 cm and may present as solitary or multiple lesions.⁵

In our case LLM was large in size but highly friable simulating cervical cancer. In this case imprint cytology was done which revealed no malignant cells reassuring the benign nature of the lesion. The other differential diagnosis include lipoleiomyosarcoma, benign cystic teratoma, pelvic fibromatosis and fatty degeneration in

leiomyoma. Occasionally a cervical myoma may become pedunculated, ulcerate and simulate a malignant tumor.

The pathogenesis remains obscure. IHC confirms the complex histogenesis of these tumors, which may arise from mesenchymal immature cells or from direct transformation of smooth muscle cells into adipocytes.⁶ LLM may be confused with other lesions like spindle cell lipoma, angioliipoma, angiomyolipoma, atypical lipoma, myelolipoma, myxoid mesenchymal tumors, pelvic fibromatosis, well-differentiated liposarcoma and carcinosarcoma.

LLM, if asymptomatic, requires no treatment. But in our case patient was symptomatic and so surgery was done. These cases still need follow-up as lipoleiomyosarcoma or intravenous lipoleiomyomatosis have rarely been reported. LLM are benign and have favourable outcome with no recurrences or deaths.⁷

LLM can be associated with estrogenic conditions like adenomyosis, endometriosis, endometrial hyperplasia, polyps and gynecologic malignancies or benign ovarian neoplasm.^{8,9}

CONCLUSION

Uterine LLM is a benign fatty tumor but should be differentiated from degenerative or neoplastic change in uterine leiomyomas. IHC studies are necessary for its diagnosis and for understanding its complex histogenesis. Sometimes the surgery may be difficult because of friability of tissues and surgeon may face the dilemma whether to do simple hysterectomy or extended hysterectomy with lymphadenectomy.

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Ethical approval: Not required

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