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Case Report

Uterosacral ligament fibroid: a rare occurrence yet a major diagnostic challenge

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ABSTRACT

Fibroid is a common benign neoplasm more often located in the uterus and less commonly seen in the adnexa and other supporting structures of uterus like broad and uterosacral ligament. The incidence of extra uterine leiomyomas is <1%. A 48-year-old female para one live one presented with chief complaints of mass per abdomen for 2 years and prolonged heavy bleeding for 15 days. Based on the clinical and radiological findings, a diagnosis of tubo-ovarian mass was made. The patient underwent staging laparotomy. However, intraoperatively, she was diagnosed with uterosacral ligament fibroid of size approximately 40×45 cm. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done. There was no associated complication. Histopathology confirmed the mass to be leiomyoma. Uterosacral ligament fibroid is encountered very rarely. Our case report intends to bring to light the necessity of keeping the various possible locations of leiomyoma in mind and in considering adnexal mass as an important differential diagnosis of leiomyoma and vice-versa before operating. Leiomyoma is often confused with ovarian mass or neoplasm posing a diagnostic difficulty to a gynaecologist as well as radiologist thereby posing a challenge to the operating surgeon while performing surgery.

Keywords: Uterosacral ligament, Fibroid, Ovarian mass

INTRODUCTION

Leiomyomas are the most common solid and symptomatic neoplasm in women. They originate from monoclonal expansion of smooth muscles in the myometrium.¹ Location of a fibroid in the supporting structures such as broad ligament or uterosacral ligament, though rare (incidence <1%), are now being frequently diagnosed as an incidental finding intraoperatively.² A large leiomyoma and adnexal mass are differentials of each other. This can cause a major confusion in the diagnosis both for the gynecologist and the radiologist owing to the huge size and similarity in the clinical manifestations and examination findings. Our case report elaborates one such unique case of a uterosacral ligament fibroid which was confused with ovarian malignancy both clinically and radiologically.

CASE REPORT

A 48-year-old female, para 1 live 1, presented with complaint of mass per abdomen for 2 years. The mass progressed slowly and was associated with a feeling of abdominal heaviness. She had one cycle of prolonged and heavy menstrual bleeding for a period of 15 days in the current cycle with use of 4-5 pads per day associated with clots passage and dysmenorrhea. She had no history of prior menstrual abnormalities and any pressure symptoms. There was no associated pain in abdomen, fever, vomiting, loss of weight or appetite and any other GI symptom. On per abdominal examination, a mass extending up to umbilicus about 20 cm from the pubic symphysis was palpable. The mass occupied both flanks more towards the left lumbar and left iliac fossa region measuring about 25 cm transversely. It was firm in consistency, had irregular

margins and was non-tender. Side to side and anteroposterior mobility were restricted. On per speculum examination, the cervix was pulled up, cervix and vaginal were healthy with no discharge. On bimanual examination, the fornices were obliterated and the mass could be felt separate from the uterus more towards the left fornix. No tenderness was elicited in bilateral fornices.

All routine laboratory investigations and the ovarian tumour markers were within normal limits.

CA 125 (cancer antigen 125)=18.30 U/ml (normal up to 35 U/ml), CEA (carcino-embryonic antigen)=4.05 ng/ml (normal up to 5 ng/ml), β -HCG (beta-human chorionic gonadotropin)=0.35 mIU/ml (normal<10 mIU/ml).

Her ultra-sound examination (USG) showed a large heterogenous hypoechoic mass lesion of size 20×11×19 cm seen in pelvis posterior to uterus extending in both adnexa with superior extension up to supraumbilical region. Lesion causing anterior displacement of uterus and urinary bladder. Both ovaries not visualised separate from the lesion (Figure 1).



Figure 1: Transabdominal ultrasonography showing uterus with mass present posterior to uterus slightly displacing it anteriorly. Ovaries not visualized separately.

On contrast-enhanced computed tomography (CECT) pelvis, a large well defined heterogeneously enhancing soft tissue density lesion measuring 13.1×18.6×19.3 cm was seen extending up to supra umbilical region with no evidence of intralésional calcification or component. Bilateral ovaries not separately visualised from the lesion. There was no evidence of intraperitoneal free fluid or omental thickening and no significant mesenteric or retroperitoneal lymphadenopathy found. CT finding impression was suggestive of the possibility of neoplastic etiology more likely ovarian neoplasm.

Decision for staging laparotomy was taken in view of ovarian neoplasm but intraoperatively a huge leiomyoma

of size about 22×25 cm was found posterior to uterus which was seen to be arising from the left uterosacral ligament. Bilateral tubes and ovaries were found to be normal (Figure 2 and 3). Decision was taken for total abdominal hysterectomy with bilateral salpingo-oophorectomy. Surgery was performed by carefully tracing the ureter and the mass was removed. Uterus, cervix, tubes and ovaries were removed along with. Later, histopathology confirmed the mass to be benign leiomyoma. The microscopy showed interlacing fascicles of smooth muscle with foci of congestion suggestive of leiomyoma.



Figure 2: Gross surgically removed specimen of uterus with bilateral healthy fallopian tubes and ovaries.

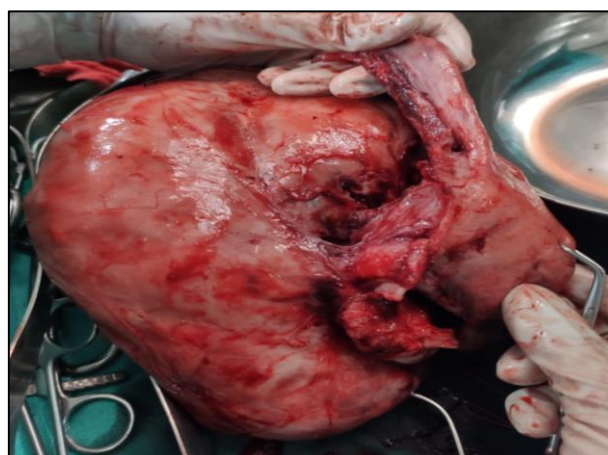


Figure 3: Huge leiomyoma of size about 22×25 cm found posterior to uterus seen to be arising from the left uterosacral ligament.

DISCUSSION

Fibroids are mostly asymptomatic, often leading to their late detection. The common symptoms are abnormal uterine bleeding, pain, and heaviness in the abdomen and/or pressure symptoms.³ The reason for late detection

of large leiomyomas is that they tend to grow to an extreme size before causing any symptoms. This happens due to their slow growth rate and relatively large volume of the abdominal cavity with easy distensibility of the abdominal wall thus facilitating an easy accommodation of a huge mass.⁴ In our case, there was a dilemma in the preoperative diagnosis due to the unusual location of the leiomyoma.

Even though the tumour markers were normal, both the USG and CECT revealed an ovarian mass.

In a study by Aydin et al a large pedunculated leiomyoma was reported which mimicked a malignant ovarian tumour thus highlighting the need to keep leiomyomas in the differential of a cystic adnexal mass.⁴

A similar study by Fasih et al highlighted the similarity in the features and hence, the confusion between extrauterine tumours and ovarian malignancy and focussed on the radiologist's expertise on diagnosing rare leiomyomas which would help in their timely management and would prevent any unnecessary intervention by the clinician.⁵

The presentation of leiomyoma can be varied. Similarly, an adnexal mass can be multifaceted thus making its diagnosis difficult. The usual diagnosis of an ovarian mass is done by a combination of markers and imaging modalities. Even though several diagnostic scoring models have been designed for the same, the accuracy remains variable and is never 100% specific. Therefore, it becomes important to counsel a patient undergoing surgery for adnexal mass regarding the possibility of an alternative intraoperative finding and hence, a change in the plan of surgery.⁶ A surgeon's prowess can be assessed based on the intraoperative decision making if the diagnosis differs after opening the abdomen.

CONCLUSION

This case report wants to bring to light, the need for all gynaecologists to keep in mind all possible locations of

leiomyoma as well as the coexistence of fibroid with ovarian mass and therefore, be prepared to modify the method of surgery accordingly, if required.

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