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## A rare case of huge broad ligament fibroid

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### Abstract

Broad ligament is a very uncommon site for presentation of leiomyoma with a very low incidence rate. Because of its overall low incidence rate, it poses both clinical and radiological difficulty in differentiating with an ovarian tumour. We are presenting a rare case of a 37 year old multiparous female with a huge broad ligament fibroid.

**Keywords:** Broad ligament, leiomyoma, laprotomy

### Introduction

Leiomyomas are most often benign tumors of the female genital tract. Uterine leiomyomas are the most common myomas, accounting for approximately 20-30% of cases in females less than 35 years. Cervical fibroids account for 3% to 8% of uterine leiomyoma. Leiomyoma of the broad ligament is extremely rare [1]. It is the most common solid tumour of the broad ligament but incidence of broad ligament fibroid is less than 1% [2].

The most common site of extrauterine leiomyoma is broad ligament but it has a low incidence rate. Broad ligament fibroid has been reported to reach a huge size which can mimic an ovarian tumour. These broad ligament fibroids are usually asymptomatic but if neglected they reach huge size which results in chronic pelvic pain, compression of the bladder and the bowel with dysfunction. It can present with AUB with a coexisting intrauterine fibroid [3,4].

On account of its rarity, it poses specific diagnostic difficulties and may be responsible for erroneous diagnosis and management. Here we present a rare case of huge broad ligament fibroid mimicking ovarian tumour creating diagnostic difficulties.

### Case report

A 37 year old multiparous female, P3L3, all normal vaginal deliveries presented with complaints of polymenorrhagia with pelvic pain and dragging sensation in lower abdomen from past one month to Department of Obstetrics and Gynaecology, Government Medical College & Hospital, Amritsar. There was no bladder or bowel dysfunction.

General physical examination revealed that the patient was anaemic with haemoglobin 7.2 gm% for which 2 units of packed red blood cells were transfused and the patient was built up for surgery. Vitals of the patient were stable.

On Abdominal examination a firm mass arising from pelvis corresponding to 18 to 20 weeks size was felt. Vaginal examination demonstrated that uterus was 18 to 20 weeks size, cervix was deviated to right side with left fornix showing a bulge of firm to hard consistency. The uterus moved with the mass.

On USG a 14 x 10 x 17 cm well-defined heterogeneous altered signal intensity lesion was seen involving the lower abdominal cavity and pelvis. The mass showed solid cystic components predominantly solid suggesting Subserosal fibroid. A single 4.1 x 5.8 cm sized lesion seen in the anterior wall of the uterus suggestive of Intra-mural fibroid. A simple cystic lesion measuring 4.6 x 4.3 cm seen in the right ovary.

On laprotomy a 20 x 18 cm mass was found occupying the broad ligament adjoining the left wall of the uterus. The uterus was pushed up and displaced to the right side. The mass was extending deep in the pelvis up to the level of ischial spines with difficulty in delivering the uterus for hysterectomy from incision. The round ligament stretched over the mass was incised and incision extended down to the capsule of the mass. The mass was then enucleated gently following the capsule taking care of not causing injury to the ureter. The mass was easily separable from the uterus with no blood supply from it and it was mainly from the pelvic

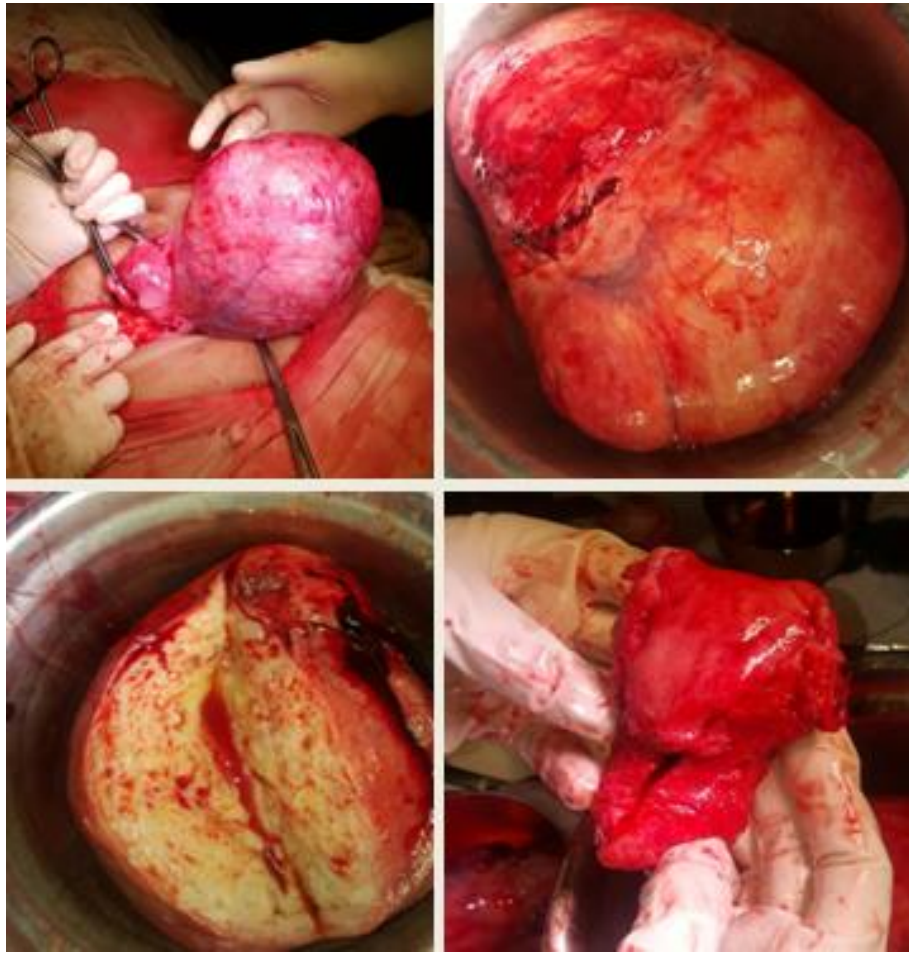
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vessels. Total Hysterectomy with bilateral salpingo-oophorectomy was done. A small cyst on the right side measuring 6 x 5 cm with smooth surface containing clear fluid removed along with the ovary. The mass was sent for histopathology and

was confirmed to be a fibroid. Postoperative period was uneventful and the patient was discharged from hospital after 2 days.



**Fig 1:** Surgical procedures demonstrating huge broad ligament fibroid with hysterectomy specimen

### Discussion

Broad ligament leiomyoma is a benign smooth muscle tumour which originates from broad ligament hormone sensitive smooth muscle or secondarily from the smooth muscle of uterus.

They are usually asymptomatic but have a potential to grow to a very large size which can present as pressure symptoms of pelvic pain and bladder or bowel dysfunction [4-6].

It can be single or multiple, with size variation from small to huge. They can be intramural, submucosal, or subserosal which may be pedunculated and simulate adnexal mass. In 50% of cases they are asymptomatic. The extra-uterine location of leiomyoma can be in broad ligament, ovary, urinary bladder, urethra, vulva, vagina or anywhere there is smooth muscle [5, 7]. Other variants in growth patterns can be diffuse peritoneal leiomyomatosis, intravenous leiomyomatosis, parasitic leiomyoma or benign metastasizing leiomyomatosis, where they can be found even in lung due to hematogenous dissemination and retroperitoneal leiomyomas. Among extra-uterine fibroids, broad ligament fibroids generally achieve enormous size and generally present with pressure symptom like bladder and bowel dysfunction [8, 9].

The diagnosis of broad ligament fibroid is difficult. The most useful modalities are USG, CT and MRI. The differential diagnosis of broad ligament fibroid includes pedunculated subserosal fibroid projecting towards the broad ligament, solid ovarian neoplasm, broad ligament cyst and lymphadenopathy [7].

The differential diagnosis for broad ligament fibroids includes pedunculated subserosal leiomyoma projecting towards the broad ligament, solid ovarian neoplasms particularly those with dominant fibrous components that tend to be inseparable from the ovary as ovarian fibroma or fibrothecoma and Brenner tumour, broad ligament cyst, and lymphadenopathy.

Surgery in such cases is challenging because of size and location of these fibroids especially since surrounding organs such as ureter, intestines and urinary bladder are at risk to get injured [8, 9].

### Conclusion

Broad ligament leiomyomas mimics ovarian tumors on clinical and radiological examination and it should be kept as important differential diagnosis for such solid adnexal or ovarian mass. This case is reported to emphasize the surgical complications they can cause. During surgery one should be very careful about ureteric course and surrounding organs. Myomectomy can be done before hysterectomy to decompress the mass, in order to facilitate the surgery.

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