

## A Giant Broad Ligament Fibroid with Cystic Degeneration

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### Abstract

Fibroid is the commonest benign tumor of the uterus and extrauterine sites are rare of it. Broad ligament fibroid is most common extrauterine site. We are presenting a case of 43 year old female Multipara, sterilized who presented in guru hospital, Madurai with complaints of abdominal distention with abdominal pain. CA 125 was borderline 37.5. On evaluation it was look like ovarian malignancy/broad ligament fibroid. Intraoperatively, uterus was pushed to side and a broad ligament fibroid of 30 × 25 × 18 cm noted which is densely adhered to bowel posteriorly and ureter is passing lower and medial to mass. Exploratory laprotomy with total hysterectomy with excision of broad ligament fibroid done which was weighing 8.5 kg. Histopathology came as broad ligament fibroid with hyaline and cystic degeneration. This case is reported for its rarity and the diagnostic difficulties in differentiating malignant ovarian tumor, benign fibroid with cystic degeneration and surgical orientation for its removal.

**Keywords:** Broad ligament fibroid; Ovarian malignancy; Exploratory laprotomy.

### Introduction

Fibroid is the commonest benign tumor of the uterus<sup>1</sup> and also the commonest benign solid

tumour of the female. Histology of this tumour is composed of smooth muscle and fibrous connective tissue so named as uterine leiomyoma, myoma or fibromyoma. It has been estimated that at least 20 percent of women at the age of 30 have got fibroid in their wombs. Leiomyoma mostly arises in the body of the uterus and rarely arises in extrauterine sites.<sup>2</sup> Broad ligament is the most common extrauterine site for the occurrence of leiomyoma.<sup>3</sup> Other extrauterine sites are the round ligament, ovarian ligament, and the ovaries.<sup>4</sup> The prevalence is highest between 35-45 years. Leiomyoma is the most common solid tumour of the broad ligament but incidence of broad ligament fibroid is less than 1%.<sup>5</sup> Broad ligament fibroids are usually asymptomatic but large tumour present as abdominal distention, chronic pelvic pain, bladder dysfunction and bowel dysfunction. It can mimic as ovarian tumour, broad ligament cyst, Pedunculated leiomyomas of the body of uterus, and lymphadenopathy and With the presence of cystic degeneration it mimic as ovarian malignancy, peritoneal inclusion cysts, paraovarian cysts, mucocele of appendix, hydrosalpinx, cystic adenomyosis, lymphocele.<sup>6,7</sup> Transabdominal & Transvaginal ultrasound may help in the diagnosis of broad ligament fibroid as it usually have a characteristic ultrasound appearance but in cases of the huge size and in presence of degenerations,

it may create some confusion at the diagnosis hence MRI is the extremely useful for differentiating broad ligament fibroids from masses of ovarian or tubal origin and from broad ligament cyst.<sup>8</sup>

### Case report

A case of 43 year old female Presented to our hospital with complaints of abdomen distention since 2 months along with abdominal pain with pelvic heaviness since 1 week. She has three full term normal vaginal deliveries and sterilized 15 year back. Her Menstrual cycles were normal [3–4 days / 30 days], regular and no history of menorrhagia, missed periods, spotting pervaginum, white discharge pervaginum. There were no disturbances in the bowel and bladder function. There were no associated other symptoms. She is a known case of diabetes and hypertension on treatment. On examination—Patient was conscious, oriented, afebrile and mild pallor present. On abdominal palpation, abdomen uniformly Distended nearly 32 weeks size of gravid uterus, ~32 × 26 cm size felt over more on the left iliac fossa up to the lower border of epigastrium.

The mass was nontender and firm with limited mobility side to side. In pelvic examination, cervix was drawn up and deviated to the right side and appears healthy & A hard mass felt in midline and deviated more towards left fornix.

On evaluation- MRI Abdomen and pelvis (09.05.19) showed-large mixed signal intensity mass lesion of “28.5 × 14.4 × 23.5” cm noted in pelvis extending to the abdomen upto the level of epigastrium with intense vascularity and heterogeneous enhancement.

The lesion cause mass effect over the urinary bladder, bowel loops and uterus. Posteriorly cause mass effect over the pelvic vessels and bilateral lower ureters. Uterus pushed to right side. Minimal free fluid in the POD elicited. No significant lymphadenopathy. Mild hydronephrosis seen bilaterally. Impression given as left subserosal/broad ligament fibroid of uterus with degeneration/? Mucinous cystadenoma. Her CA125 levels was normal as value was 37.5 IU/ml. other hematological & clinical parameters were within normal limits.

The patient was planned for exploratory laparotomy. Intraoperatively, nearly 30 × 25 × 18 cm mass arising from the left paraovarian region to epigastrium (Fig. 1).

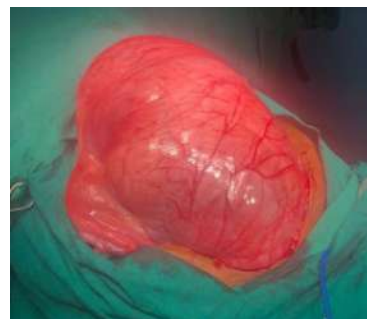


Fig. 1:

Dense bowel adhesion present posteriorly, same released with blunt and sharp dissection. Minimal serous free fluid present which is taken for cytology. Uterus attached to the mass and displaced the right side. Right and left ovary normal. Right and left ureter identified and preserved. ureter is passing lower and medial to mass presenting it as true broad ligament fibroid. Ureter is identified throughout its course and carefully separated from the mass from its lower medial border till bladder (Fig. 2).

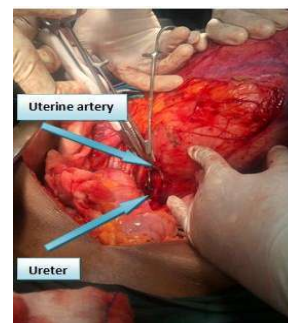


Fig. 2:

Total hysterectomy with excision of broad ligament Mass proceeded by dividing the round ligaments, cardinal ligaments and uterosacral ligaments and then vault closed (Fig. 3).

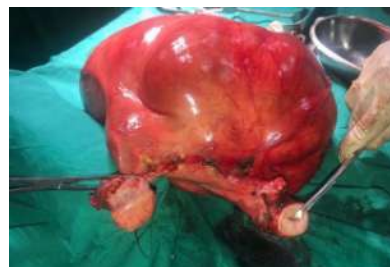


Fig. 3:

As CA 125 was borderline raised and possibility of ovarian cancer was suspected hence Omentum biopsy and Peritoneal biopsy taken. Free fluid sent for cytology. Gross examination showed uterus and right ovary and tubes normal. a large broad ligament mass attached with stretched left ovary

and tubes over it (Fig. 4). Mass weighing ~8.5 kg. External surface of the mass was congested. Capsule intact. Cut surface was grey white, firm with whorly appearance with cystic areas noted within it. Histopathology came as broad ligament fibroid with hyaline and cystic degeneration with some area of necrosis also seen within it.



Fig. 4:

## Discussion

Huge fibroids are known to arise from the body of the uterus and very rarely from extrauterine sites. It may arise in the broad ligament or at the other sites where smooth muscles exist.<sup>9</sup> Broad ligament is most common site of extrauterine origin of fibroids. Broad ligament fibroids usually present late and achieve enormous size. Clinically they present with abdominal distention, chronic pelvic pain, flank pain due to hydronephrosis, bladder and bowel dysfunction. Most common secondary changes in fibroids are degenerations, fibrosis, calcification, infections, hemorrhage, and necrosis.<sup>10</sup> Giant fibroids usually go for degeneration which is considered due to inadequate blood supply and mimic like ovarian malignancy, paraovarian cyst, lymphocele mainly with cystic degeneration and may cause confusion in diagnosis. Ultrasonography, CT Scan and MRI are important diagnostic tool for its identification. Hyaline degeneration is most common nearly 60%, calcific degeneration, cystic degeneration (4–5%) are rare of it. Sometimes one, two or many degeneration may present in same tumour. Broad ligament leiomyoma are of two variants, False broad ligament fibroid, in this uterine tumor which grows into the broad ligament and ureter are always lateral to the tumour mass and a true broad ligament fibroid arising from the subperitoneal connective tissue of the ligament and ureter can be medial or lateral to the tumour. In our case, ureter was medial to mass so it was a true broad ligament fibroid. Because of tumour

site in broad ligament there is high chances of complication like injury to ureter, injury to pelvic vessels, bleeding from myoma bed, urinary bladder and bowel injury, postoperative haematoma formation hence surgical experts are needed for its removal to avoid the complications. In our case, we found operative importance posed as ureter course was below and between the broad ligament mass and uterine body so ureter is identified throughout its course and carefully separated till bladder. During surgery, it is very important to identify the course of ureter and separate it carefully from broad ligament mass to prevent injury to it.<sup>12,13</sup>

## Conclusion

The broad ligament fibroid is a benign tumour can grow to huge size and with the presence of degeneration it is causing difficulties in reaching in final diagnosis. Use of Doppler, MRI and tumour markers are good tools to make a proper diagnosis. Surgical removal can be difficult due to difficulties to reach in the capsular plane and high risk of injury to ureter. With extreme surgical expertise, proper identification of the true or false broad ligament fibroid and capsular planes with proper separation of the ureteric planes give the successful outcome of the surgery.

**Conflicts of interest:** None

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