



A Case Report of Uterine Fibroid with Broad Ligament Fibroid

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ABSTRACT

Introduction: Leiomyoma is the most common tumour of the uterus. Broad ligament is the most common extrauterine site for occurrence of leiomyoma. These benign tumours in the broad ligament are usually asymptomatic but if neglected can reach to enormous size and result in chronic pelvic pain, compression of bladder, and bowel with dysfunction.

Case Report: We are presenting a rare case of leiomyoma of broad ligament in a post-menopausal 45-year-old female with complaints of pain and heaviness in lower abdomen. On clinical examination, there was a 26-weeks size firm, non-tender, mobile mass extending to the umbilicus. Ultrasound pelvis showed grossly enlarged uterus with multiple fibroids in anterior and posterior myometrium, largest one seen arising from posterior myometrium. Bilateral ovaries not visualised. CT scan showed intramural uterine fibroid of about 3.4x2.6 cm in posterior uterine wall with a soft tissue mass lesion of about 20.6x18.5x9.5cm in left adnexal region extending to umbilicus possibly ovarian fibroma.

Result: Enucleation of broad ligament fibroid was done along with TAH BSO. Histopathology confirmed it to be a soft tissue tumour-leiomyoma.

Conclusion: Broad ligament leiomyomas mimic ovarian tumours on clinical and radiological examination and there may be difficulties in differentiating the two. Thus, histopathology plays an important role to confirm the diagnosis.

Clinical Significance: We present this case because of its rarity and diagnostic difficulties it posed.

Key Words: Leiomyoma, Broad ligament fibroid, TAH BSO, Benign, Ureter, False broad ligament fibroid

INTRODUCTION

Leiomyoma is the most common benign neoplasm of the uterus and the female genital tract, and accounts for approximately 20-30% of cases in females of reproductive age group. Leiomyomas can be intrauterine or extrauterine. Among the extrauterine fibroids, broad ligament fibroids are the most common to occur although its overall incidence is extremely rare at <1%.¹ Other extrauterine sites are round ligament, ovarian ligament, and the ovaries. Broad ligament fibroids can be primary (true) or secondary (false).² True broad ligament fibroids arises from the tissues of broad ligament itself with uterine vessels and ureter lying medial to the tumour. False broad ligament fibroid arises from the uterus, grows laterally between the two layers of broad ligament and retains its attachment to the uterus. Uterine vessels and ureter lie lateral to the false broad ligament fibroid. It often coexists with fibroids of the uterus.³ Clinically broad ligament fibroids may manifest as extrauterine pelvic masses that compress the urethra, bladder neck, ureter or bowel producing symptoms of varying degrees of urinary and bowel dysfunction.

It may also lead to chronic pelvic pain and menstrual irregularities when it co-exists with intrauterine myoma. Here, we are reporting a rare case of huge broad ligament fibroid with diagnostic difficulties in differentiating it from an ovarian tumour. Ovarian malignancy should be ruled out prior to a planned surgery.

CASE REPORT

A 45-year-old woman presented to OPD with complaints of pain abdomen. She is a P1L1. Last childbirth 25 years back by normal vaginal delivery. Patient has attained menopause 2 years back. There was no significant past medical or surgical history. On abdominal examination, a lump of 26 weeks size firm in consistency was felt. On bimanual examination, uterus could not be felt separately. There was fullness in both the fornices. Further imaging showed intramural uterine fibroid of about 3.4x2.6cm in posterior uterine wall with a large soft tissue mass lesion of about 20.6x 18.5x 9.5 cm in left adnexal region most likely uterine fibroma.

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RESULTS

Routine investigations and special investigations were done which showed Hb 10.2g/dl, Platelets 1, 85,000/ul, TLC 7000/ul, S.Bil 0.53mg/dl, SGPT 25U/dl, urea 23mg/dl, creatinine 0.47mg/dl. Tumour markers were also done: CA 125 3.6U/dl, CEA 1.6ug/l, CA 19.9 17.86 U/ml, LDH 299U/L, AFP 6.3 ng/ml, Bhcg8.6IU/L. PAP smear showed non-specific endocervicitis. USG showed grossly enlarged uterus with multiple fibroids in anterior and posterior myometrium, largest one is seen arising from posterior myometrium filling the pelvis and reaching up to the epigastrium 15x18x19 cm. Bilateral ovaries are not visualised. CT scan showed intra-mural uterine fibroid of about 3.4x2.6 cm in posterior uterine wall with a large soft tissue mass of about 20.6x18.5x9.5 cm in left adnexal region extending to supra umbilical region. Left adnexal mass region possibly arising from left ovary and ovarian fibroma is possible differential diagnosis.



CT Scan Plate Showing Intrauterine Fibroid With Left Adenaxal Mass

Differential Diagnosis

The differential diagnosis for broad ligament fibroids possibly includes masses of ovarian origin, broad ligament cysts, and lymphadenopathy. Pedunculated leiomyomas should be considered in the differential diagnosis of a solid adnexal mass.⁴ Fibroid uterus may have a spectrum of presentation and sometimes the rarest of presentations may give rise to confusing clinical diagnosis.

Treatment

Patient underwent TAH BSO under combined spinal epidural anaesthesia and a broad ligament fibroid of size 20x15 cm was seen on left side, which was first enucleated, and then TAH BSO was performed. Patient stood the procedure well and was discharged on eighth postoperative day.

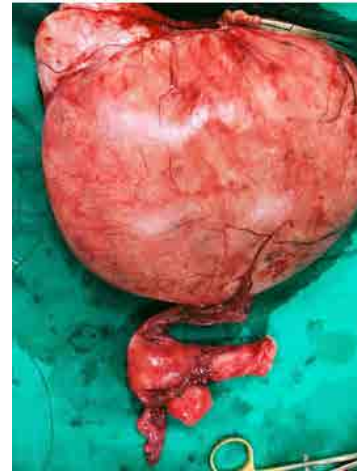


Figure 1: Left side broad ligament fibroid.



Figure 2: TAH BSO done along with Enucleation of fibroid.

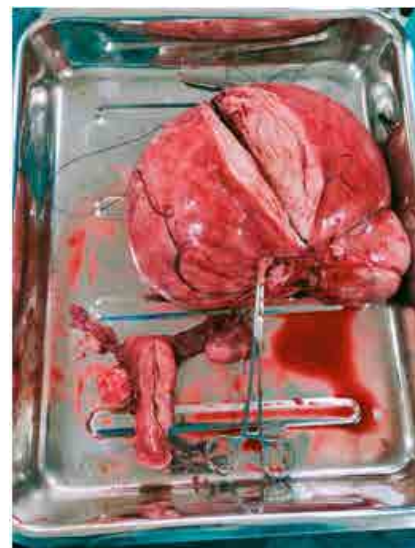


Figure 3: Cut section of broad ligament fibroid showing whorled appearance.

DISCUSSION

Broad ligament is a two-layered fold of peritoneum connecting sides of uterus with the lateral pelvic wall. Among the broad ligament tumours, epithelial tumours are the most common type whereas mesenchymal tumours are rare. Among the mesenchymal tumours, the most common type is leiomyoma.⁴ It has been suggested that leiomyomas which are adherent to broad ligament, originate from hormonal sensitive smooth muscle elements of broad ligament itself. Broad ligament leiomyoma can originate from the uterus and invade the broad ligament (false) or it can originate from broad ligament itself (true). These benign tumours are usually asymptomatic. However, if the leiomyoma reaches significant size it can potentially compress the surrounding pelvic structure and manifest clinically with various signs and symptoms. The location of the tumours often determines the various symptoms.⁵ If allowed to reach an enormous size, it can present with pressure symptoms, pelvic pain, bladder and bowel dysfunction. Intrauterine fibroid, on the other hand, in addition to pressure symptoms often presents with menstrual irregularities and dysmenorrhea.

The case presented here had both chronic lower abdominal pain and heaviness in lower abdomen likely to have been caused by the huge broad ligament fibroid. It is important to discriminate between the benign or malignant nature of adnexal lesion in pre-operative period for optimal patient management.

In our case, clinical examination, USG, and CT scan findings raised the suspicion of an ovarian tumour or intrauterine fibroid. The serum levels of tumour markers were within normal range. Leiomyomas may be single or multiple. In our case, there was a single mass in broad ligament with small intrauterine leiomyomas. Broad ligament leiomyomas have the potential to grow to large size.⁶ When they grow to a large size, secondary changes may occur which includes degeneration, infection, haemorrhage and necrosis. Primary leiomyosarcoma in broad ligament is rarely reported.⁷

CONCLUSION

Broad ligament leiomyomas often mimic ovarian tumours on both clinical and radiological examination and there may be difficulties in differentiating both. It should be kept as

an important differential diagnosis of solid adnexal or ovarian masses. The diagnosis of broad ligament leiomyomas is difficult when it is solely based on clinical and radiological examination due to its rarity and unusual presentation. Thus, histopathology plays an important role in confirming its diagnosis. It is also common for it to coexist with uterine fibroids. Broad ligament fibroids of huge size can displace the uterus and distort its anatomy. Surgical expertise is required to avoid injury to adjacent structures.

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