

## Case Report

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# Broad Ligament Fibroid: A Diagnostic Dilemma

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### Abstract

*Leiomyomas are the commonest of all pelvic tumors. One-fifth women of reproductive age group suffer from this condition. Tumors of broad ligament are rare. Most common solid tumor of the broad ligament is a leiomyoma. It can originate from the uterus or broad ligament itself. Here, we report a case of broad ligament leiomyoma in a woman having secondary infertility and it posed a diagnostic dilemma.*

**Keywords:** *Leiomyoma; broad ligament; fibromyoma.*

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### Introduction

Leiomyomas are the most common benign tumor of female genital tract. While they can develop at various sites of the uterus, most frequently affect the uterine myometrium, arising from neoplastic transformation of single smooth muscle cell. It can arise from unusual sites like in the remnants of a previous hysterectomy or myomectomy or de novo.<sup>1</sup>

The true incidence of leiomyoma is uncertain as many women with these tumors are asymptomatic. Leiomyomas are clinically apparent in 20-30% of women during reproductive life and may be present in as many as 70% of uterus removed at the time of hysterectomy.<sup>1-3</sup>

Here, we report a case of broad ligament leiomyoma in a woman with secondary infertility where it was a diagnostic dilemma.

### Case Report

A 37-year-old lady presented with complains of progressive enlargement of abdomen with feeling of heaviness for last 2 years. She also developed

intermittent pain in the lower abdomen for last 2 months. The pain was dull aching without any radiation and used to relieve after taking analgesics. She had secondary sub-fertility for last 9 years, had regular menstruation from menarche (13 years) with average flow and duration. Her contraceptive history was nil. She had one child of 10 years and was delivered by normal vaginal delivery. She had history of diabetes mellitus for last one month but no surgical history.

On clinical examination, she was mildly anemic and normotensive. Per-abdominal examination revealed a mass of about 34 weeks pregnancy size, soft in consistency, surface irregular, non-tender with well-defined margins except lower pole, restricted mobility. There was no ascites. Percussion was dull over the mass. On per-vaginal examination, cervix was pulled up and was healthy looking. Pelvic cavity was filled with a huge, slightly irregular, soft tissue mass extending up to epigastrium, moderately restricted. Uterus could not be separated from the mass.

Ultrasonologically there was a very large soft tissue echogenic mass in abdomino-pelvic cavity suggestive of ovarian tumor or subserous fibroid. An abdominal-pelvic computed tomographic scan diagnosed degenerated subserous fibroid.

After the diagnosis, she was counseled for laparotomy. Under general anesthesia, pre-operative ureteric stenting was done. There was no free peritoneal fluid. A huge mass was occupying whole abdomen. No engorged vessels were visible on surface; mobility was restricted due to adhesion with surrounding structures. Origin of tumor could not be ascertained initially but seemed to

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be arising from broad ligament of uterus (Figure 1). After dissection, two masses (Figure 2) were found covered by both leaves of right broad ligament. Both masses were attached to the right margin of uterus. The larger mass weighed 7 kg and smaller one was 5 kg. The uterus was bulky, both ovaries and tubes were unremarkable. Total abdominal hysterectomy (TAH) and bilateral salphingo ophorectomy (BSO) were done. Histopathological examination of excised mass showed interlocking bundles of smooth muscle fibers. Areas of hyalinization and cystic changes were present. No malignancy was seen. So, final diagnosis was degenerated leiomyoma. Patient was discharged on 10<sup>th</sup> post-operative day without any complication.



**Fig.-1:** Per-operative view of the mass



**Fig.-2:** Two separate resected abdomino-pelvic masses

### Discussion

Broad ligament leiomyomas are leiomyomas that occur in relation to the broad ligament and are sometimes considered a variation in terms of location for a uterine leiomyoma. While in most cases broad ligament

leiomyomas are asymptomatic, patients may present with pelvic pain or a palpable pelvic/abdominal mass.<sup>2,4</sup> Pelvic pain may be a result of pressure effects on adjacent organs or a complicating torsion. A leiomyoma occurring in this location poses greater diagnostic difficulty than when it occurs in the uterus. In uncomplicated cases (e.g no degeneration) it is seen as a solid adnexal mass which is separate from both the uterine body as well as the ovary. Usually seen as a hypoechoic, solid, well-circumscribed adnexal mass, often can be heterogeneous if large. There is generally no interface between tumor and uterus and no straight relation to the ipsilateral ovary. Signal characteristics in uncomplicated cases are essentially similar to a uterine leiomyoma.<sup>5</sup>

T1 : is 0 to low signal

T2 : typically low signal

T1 C+ : most enhance similarly to the myometrium, while larger leiomyomas tend to enhance less and heterogeneously

Torsion of the leiomyoma can occur in pedunculated fibroid. General considerations include;

Other unusual leiomyomas-

- parasitic leiomyoma involving the broad ligament
- pedunculated subserosal leiomyoma projecting towards the broad ligament

Solid ovarian neoplasms: particularly those with dominant fibrous components-

- ovarian fibroma: fibrothecoma: tend to inseparable from the ovary
- Brenner tumour: tend to be inseparable from the ovary

Other ligamentous mesenchymal tumours-

- neurofibroma in pelvis etc.

In our case, the patient was free from usual symptom of fibroid because this tumor did not arise from uterus. She was a patient of 37 years with secondary sub-fertility and had no menorrhagia but still we did TAH with BSO due to intractable per-operative hemorrhage from pampiniform plexus of broad ligament.

### Conclusion

Leiomyomas are very common tumor and can occur from uterine smooth muscle. Uncommonly, arise from an unusual site and may present with unusual

symptoms. Rapid treatment of a lesion can improve the life quality of the patient.

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