

## Huge Broad Ligament Myoma: A Case Managed by Myomectomy and Hysterectomy

Ahmed Samy El-Agwanya\*

Department of Obstetrics and Gynecology, Faculty of Medicine, Alexandria University, Egypt

**\*Corresponding Author:** Ahmed S El-agwany, El-shatby maternity university hospital, Faculty of Medicine, Alexandria University, Alexandria, Egypt.

**Received:** February 18, 2016; **Published:** July 11, 2016

### Abstract

The broad ligament is the commonest extra uterine site for leiomyoma but with low incidence rate. We present a patient with complains of lower abdominal pain and abdominal distension. Abdominal examination revealed a huge firm mass arising from the pelvis corresponding to 24 weeks' size. Cervix was deviated and elevated but felt separable of the mass. Ultrasonographic examination showed 25 cm fibroid beside the uterus suggesting broad ligament fibroid. On laparotomy, the uterus was elevated up and deviated laterally by the mass. A 25 cm broad ligament fibroid was seen extending deep in the pelvis and up filling all the broad ligament. Myomectomy was performed initially to decompress the mass for easy hysterectomy carefully evaluating the ureter avoiding its injury. Total hysterectomy with bilateral salpingo-oophorectomy was done later with bilateral internal iliac artery ligation for securing hemostasis the mass weighted about 5 kgs. This case was reported because of the rare incidence of broad ligament leiomyoma and the difficulty in its operative management.

**Keywords:** Myomectomy; Hysterectomy; Fibroid; Broad ligament

### Introduction

Leiomyoma is the most common tumour of the uterus [1]. Broad ligament is the most common extra uterine site for the occurrence of leiomyoma [2]; the incidence is < 1% [3]. Other extra uterine sites are the round ligament, ovarian ligament and the ovaries [4]. Leiomyoma in the broad ligament has been reported to reach a huge size which can mimic ovarian malignancy [5].

These benign tumours in the broad ligament are usually asymptomatic but if neglected and reached an enormous size, it results in chronic pelvic pain, compression of the bladder and the bowel with dysfunction. It can lead to menstrual abnormalities with a coexisting intrauterine myoma.

This case was reported because of the rare incidence of broad ligament leiomyoma and the difficulty in its operative management.

### Case

A 43-years old multiparous female, G3P3, NVD, presented to our hospital with complaints of abdominal distension and abdominal pain with pelvic heaviness. There were no disturbances in the bladder and bowel function. There were no associated other symptoms with IUD intrauterine as a contraceptive method. General physical examination was free. Her vitals were free. Her abdomen was distended with a huge pelvi-abdominal mass of a pregnancy size of 24 weeks. The mass was non tender and firm. It has limited mobility from side to side. Pelvic examination revealed normal vulva and vagina. The cervix was drawn up and deviated to the left side. It was

closed and grossly looking healthy. Abdominal ultrasound showed a huge solid mass measuring 25 cm beside the right side of the uterus. Her full blood count and differential, and serum biochemistry was within normal limits. CT scan and IVU were not done because of patient's financial constraint. A diagnosis of broad ligament leiomyoma was suggested. She was scheduled for laparotomy for hysterectomy. Intraoperatively, following a low transverse large incision, a huge right broad ligament leiomyoma measuring approximately 25 cm in its widest diameter was seen. The uterus was pushed up and displaced to the left side. The mass was extending deep in the pelvis to the level of the ischial spine, occupying the pelvis with difficult delivering the uterus from the incision for hysterectomy. The round ligament stretched over the mass was incised by diathermy and extending the incision down to the capsule of the mass. The plane of cleavage was identified and the mass was enucleated gently following the capsule taking care at the bed of the myoma avoiding injury to the ureter. Maintaining dissection of the myoma intracapsular, close to the myoma and avoiding pulling it out sharply preventing injury to the ureter. The mass was separable easily from the uterus with no blood supply from it, it was mainly from pelvic vessels. Then total hysterectomy with bilateral salpingo-oophorectomy was done. The bed of the myoma was extending so deep in the pelvis reaching the ischial spine level with oozing so, bilateral internal iliac artery ligation was done securing hemostasis (figure 1). The mass was sent for histopathology measuring 5 kgs and was confirmed to be a fibroid. The patient 1 litre of blood intra and postoperative with discharge to home after 2 days.



**Figure 1:** Huge broad ligament fibroid with hysterectomy specimen.

### Discussion

Broad ligament fibroid is a benign smooth muscle tumor which originates from the broad ligament hormone sensitive smooth muscle or secondarily from the uterine smooth muscle [5,6]. Extra uterine leiomyoma which commonly occurs in the broad ligament are usually asymptomatic. Broad ligament fibroid has the potential to grow to a very large size [7]. If reached an enormous size, it can present with pressure symptoms of pelvic pain and bladder and bowel dysfunction.

The case presented here had both pressure symptoms of chronic lower abdominal pain and heaviness in the lower abdomen. Enlargement of the leiomyoma can cause upward displacement of the uterus and it can become impacted in the pelvis leading to ureteric obstruction, urinary retention and or constipation [8].

Diagnoses of broad ligament fibroid are always a challenge. The most useful modalities for detecting extra-uterine leiomyomas are USG, CT, and magnetic resonance imaging (MRI) [9]. "Bridging vessel sign" on imaging is helpful in the diagnosis of leiomyoma [10,11]. Transvaginal ultrasound can diagnose broad ligament fibroid because it allows clear visual separation of the uterus and ovaries from the mass. MRI with its multiplanar imaging capabilities maybe extremely useful for differentiating broad ligament fibroids from masses of ovarian or tubal origin and from broad ligament cysts [12].

Because of the location and size of broad ligament fibroids, surgery is challenging, especially since surrounding organs like ureters, intestines, and urinary bladder may be at risk. It is very important that the ureteric course be identified during surgery [13,14].

### Conclusion

We report broad ligament fibroid to emphasize the surgical complications they can pose. During surgery, one should be very careful about the ureteric course and surrounding organs. Myomectomy can be done before hysterectomy to decompress the mass and facilitating surgery. We should keep dissection in the plane of cleavage intracapsular avoiding ureteric injury. Securing hemostasis at the bed of the myoma can be done by bilateral internal iliac ligation as the source of blood supply of the myoma might not be obvious.

### Compliance with Ethical Standards

**Funding:** This study was not funded.

**Conflict of Interest:** All authors has nothing to declare.

**Ethical Approval:** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent:** Informed consent was obtained from the patient included in the study.

### Bibliography

1. Neha G and Manisha L. "A Rare Case of Giant Broad Ligament Fibroid with Cervical Fibroid Mimicking Ovarian Tumour". *International Journal of Recent Trends in Science and Technology* 10.2 (2014): 208-209.
2. Bhatta N. "Tumours of the Corpus Uteri". Jeffcoats Principles of Gynaecology. 6<sup>th</sup> Edition, Arnold Printers, London (2001): 470.
3. Parker WH. "Uterine Myoma: An Overview of Development, Clinical Features and Management". *Obstetrics Gynecology* 105.1 (2005): 216-217.
4. Rajesh S and Adam M. "Benign Metastasizing Leiomyoma: 'A Sheep in Wolf's Clothing'". *Community Oncology* 10 (2013): 122-125.
5. Dayananda KR., *et al.* "Broad Ligament Fibroid Mimicking as Ovarian Tumour on Ultrasonography and CT Scan". *Journal of Clinical Imaging Science* 3 (2013): 8.
6. Stewart EA. "Uterine Fibroid". *Lancet* 357 (2001): 293-298.
7. Jagtap SV., *et al.* "Broad Ligament Myoma Mimicking as Ovarian Tumour". *Scholars Journal of Applied Medical Sciences* 2.1C (2014): 258-260.
8. Shabeen N., *et al.* "Diagnostic Dilemma in Broad Ligament Leiomyoma with Cystic Degeneration". *Pakistan Journal of Medical Sciences* 30.2 (2014): 452-454.
9. Fasih N., *et al.* "Leiomyomas beyond the uterus: Unusual locations, rare manifestations". *Radiographics* 28.7 (2008): 1931-1948.
10. Naz Masood S., *et al.* "Diagnostic dilemma in broad ligament leiomyoma with cystic degeneration". *Pakistan Journal of Medical Sciences* 30 (2014): 452-454.
11. Bansal P and Garg D. "A case of massive broad ligament leiomyoma imitating an ovarian tumour". *Journal of Clinical and Diagnostic Research* 8.3 (2014): 136-137.
12. Rajanna DK., *et al.* "Broad ligament fibroid mimicking as ovarian tumor on ultrasonography and computed tomography scan". *Journal of Clinical Imaging Science* 3 (2013): 8.

13. Kumar P and Malhotra N. "Tumours of the corpus uteri and tumours of the pelvic ligament". In: Jeffcoat's Principles of Gynaecology. 7<sup>th</sup> ed. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd. (2008): 487-516, 523.
14. Rajput DA and Gedam JK. "Broad Ligament Fibroid: A Case Series". *IJSS Case Reports & Reviews* 1.11 (2015): 8-11.

**Volume 3 Issue 2 July 2016**

**© All rights reserved by Ahmed Samy El-Agwanya.**