

HUGE BROAD LIGAMENT LEIOMYOMA MISDIAGNOSED AS SUBSEROSAL UTERINE LEIOMYOMA: A CASE REPORT AND REVIEW OF THE LITERATURE

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ABSTRACT

The broad ligament is the most common extra uterine site for leiomyoma^[3], but with a low incidence rate.^[4] We present the observation of a patient consulting for abdominal pain, abdominal distension and signs of urinary and digestive compression. Abdominal examination revealed a firm abdominopelvic mass reaching the umbilicus. Radiological examinations were in favor of a uterine fibroid, a uterine sarcoma or an ovarian tumor. Intraoperative inspection found a 30 cm mass of the left broad ligament adherent to the left adnexa. A subtotal hysterectomy with left adnexectomy was performed.

KEYWORDS: Broad ligament, fibroid, hysterectomy, myomectomy.

INTRODUCTION

Uterine leiomyomas are the most common uterine tumors^[1] affecting more than 70% of women in their lifetime.^[2] Approximately 25% of women of childbearing age have myomas. The broad ligament is the most common ectopic site for leiomyoma development^[3]; the incidence is <1%.^[4]

These benign broad ligament tumors are usually asymptomatic, but if unrecognized and grow to a huge size, they cause chronic pelvic pain, compression of adjacent organs (urinary and digestive disorders).

A leiomyoma occurring in this location poses a greater diagnostic difficulty than when it occurs in the uterus.

This case was reported because of the rarity of broad ligament leiomyoma and the difficulty of its diagnosis and surgical management.

Clinical Case

This is a 44 year old patient, without any notable pathological history, G2P2 (2 vaginal deliveries), regular menstrual cycles, she consulted because of pelvic pain of gravity type going back to one year with a progressive increase in abdominal volume, associated with constipation and pollakiuria. Abdominal examination revealed an abdominal-pelvic mass of firm consistency reaching the umbilicus. On speculum examination, the cervix could not be seen. On vaginal touch, the mass was

felt in the cul de sac of Douglas pushing the cervix forward.

Abdominal-pelvic ultrasound showed an abdominal-pelvic mass of 22 cm long axis probably related to a large myomatous uterus.

In order to better characterize this mass and determine its origin, magnetic resonance imaging was performed. It showed a large tumor formation containing several tissue contingents with heterogeneous enhancement after contrast; this mass extended from the cul de sac of Douglas to the epigastric region in height measuring 30 cm in height x 11 cm in anteroposterior diameter; this mass displaced the uterine body to the right. The uterine cavity line was respected at the level of the uterine fundus with an endometrium of normal thickness. The ovaries were not recognizable. A diagnosis of uterine fibroma developed mainly from the left uterine wall or a left ovarian tumor process was suggested (**Figure 1**).



Figure 1: Extended mass from the cul de sac of Douglas to the epigastric region in height measuring 30 cm in height x 11 cm in anteroposterior diameter.

CA 125 was 6.8 IU/ml.

In view of the clinical symptomatology, it was decided to perform an exploratory laparotomy.

Intraoperative inspection found a uterus of normal size; macroscopically normal adnexa and a large mass of 30 x 18 x 10 cm at the left broad ligament adherent to the left adnexa. A subtotal hysterectomy with left annexectomy was performed.

Pathological examination was compatible with a remodeled leiomyoma of the broad ligament.

DISCUSSION

These ectopic leiomyomas arise from the smooth muscle elements of the broad ligament.^[5,6] The ectopic leiomyoma that usually occurs in the broad ligament is usually asymptomatic. It has the potential to grow to a very large size.^[7] If it reaches an enormous size, it may present with symptoms of compression of adjacent organs resulting in ureteral obstruction, urinary retention and/or constipation.^[8]

The diagnosis of large ligamentous fibromas is always a challenge. In uncomplicated cases (e.g., no degeneration), it is considered a solid adnexal mass that is separate from both the uterine body and the ovary. The most useful examinations to detect ectopic leiomyomas are ultrasound, CT scan (computed tomography) and magnetic resonance imaging (MRI).^[8,9,10] On ultrasound,

it usually presents as a hypoechoic, solid, well-circumscribed adnexal mass, although it may be heterogeneous when large^[11], and there is usually no interface between the tumor and the uterus and no direct relationship with the homolateral ovary. On MRI, the signal characteristics in uncomplicated cases are similar to those presented by uterine leiomyomas.

- T1 : iso to low signal.
- T2: typically low signal.
- T1 C+: most enhance in the same manner as the myometrium while larger leiomyomas tend to enhance less and heterogeneously.

MRI can be useful in differentiating large ligamentous fibromas from masses of ovarian or tubal origin and from broad ligament cysts.^[5]

In our case, the fibroma location within the broad ligament was revealed for the first time intraoperatively, in contradiction with the preoperative imaging work-up.

The differential diagnosis of broad ligament fibromas includes pedunculated subserosal leiomyoma projecting to the broad ligament; identification of the site of attachment is then paramount to establish uterine origin, solid ovarian neoplasms: especially those with dominant fibrous components such as ovarian fibroma or fibrothecoma and Brenner's tumor, usually originate and are inseparable from the ovary, broad ligament cyst and lymphadenopathy.

Because of the location and often large size of broad ligament fibromas, surgery is difficult, especially since adjacent organs such as the ureters, bowel and bladder may be at risk. It is critical that the ureteral pathway be identified during surgery.^[12,13]

CONCLUSION

Large ligamentous fibroids are often underreported on preoperative imaging. It should be suspected if a fibroid is reported as lateral.

The anatomic location of fibroids in the broad ligament is associated with an increased risk of surgical complications.^[14] During surgery, great care must be taken with the ureteral pathway and surrounding organs. Myomectomy can be performed before hysterectomy to decompress the mass and facilitate surgery.

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