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Clinical Case

Incidental Finding of an Ectopic Leiomyoma in the Broad Ligament: A Case Report

Découverte Fortuite d'un Léiomyome Ectopique dans le Ligament Large : à Propos d'un Cas

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RÉSUMÉ

Uterine myoma is a fairly common pathology in our setting. We report the case of a 37-year-old patient, who was complaining of abdominal distension and pelvic heaviness for 4 months. Her abdomen was distended by a pelvic mass corresponding to 14 weeks. Abdominal ultrasound showed a solid mass measuring 121 mm on the right side of the uterus. Hysterosonography revealed 4 uterine myomas. Laparotomy myomectomy were scheduled. We found a right broad ligament leiomyoma measuring approximately 12 x 9 x 8 cm in diameter. The mass was removed. It is important to always rely on the clinical findings, which are more conclusive.

ABSTRACT

Le myome utérin est une pathologie fréquente dans notre milieu. Nous rapportons le cas d'une patiente de 37 ans, venue pour distension abdominale et pesanteur pelvienne évoluant depuis 4 mois. Son abdomen était distendu par une masse pelvienne ferme et non sensible correspondant à 14 semaines. L'échographie abdominale a montré une masse solide mesurant 121 mm du côté droit de l'utérus. L'hystérosonographie a révélé 4 myomes utérins. Une laparotomie pour myomectomie a permis de trouver un léiomyome du ligament large droit mesurant environ 12x9x8 cm de diamètre. Il est important de toujours se fier à la clinique qui est plus parlante.

INTRODUCTION

Leiomyoma is a frequent pathology in our environment, with a population made up of black women. It is also the most common tumour of the uterus [1]. The broad ligament is the most common extrauterine site for the occurrence of leiomyoma [2], with an incidence of less than 1% [3]. The others sites are the round ligament, the ovarian ligament and the ovaries [4]. Leiomyomas of the broad ligament have been reported to reach of enormous size that can mimic a malignant tumour of the ovary [5]. These benign tumours of the broad ligament are usually asymptomatic, but if left untreated they can become enormous and lead to chronic pelvic pain, bladder compression and digestive tract dysfunction. Broad ligament leiomyoma can lead to menstrual abnormalities when it coexists with an intrauterine myoma [6]. We report this case of myoma of the broad ligament, because of the difficulty in diagnosis and surgical management.

CASE PRESENTATION

We report the case of a 37-year-old patient, G4P3013, who had a normal vaginal deliveries. She presented with a sensation of abdominal lump accompanied by pelvic heaviness that had been present for 4 months. She also described menorrhagia (of volume). She had no urinary or digestive problems. On physical examination, her vital signs were normal. Her abdomen was distended and her uterus was palpated, enlarged to about 14 weeks, lumpy and non-tender. The rest of the physical examination was unremarkable. It should be noted that the patient had a pelvic ultrasound performed six days prior to the consultation, which showed a large, rounded, unilocular, thin-walled, finely particulate, right latero-uterine formation, with a broad base of implantation and attached to the uterus, measuring 121 mm in long axis. The uterus itself measured 103 × 47 × 59 mm; the right ovary was not visualised and the left was of normal size.

We therefore suggested a diagnosis of symptomatic myoma and, as a differential, a large ovarian cyst. We ordered a hysterosonogram, the results of which showed 4 uterine myomas: fundial FIGO 4 measuring 23mm, anterior FIGO 3 measuring 23mm, right lateral calcified and pedunculated FIGO 6 measuring 114mm and posterior FIGO 2 measuring 30mm. The diagnosis of symptomatic polymyomatous uterus was made and the patient was scheduled and prepared for laparoscopic myomectomy.
After a Pfannenstiel incision and plane-by-plane parietal dissection, a huge right broad ligament leiomyoma measuring approximately 12 x 9 x 8 cm in diameter was found (figure 1).

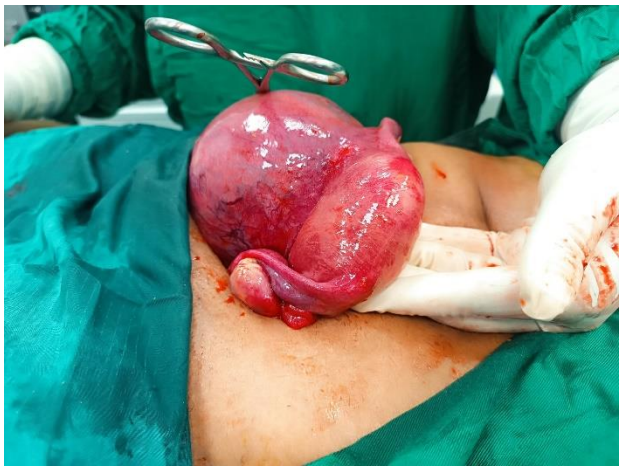

Figure 1: finding of a huge right broad ligament leiomyoma measuring approximately 12 x 9 x 8 cm in diameter

The uterus was pushed upwards and displaced to the left side. The mass extended deep into the pelvis. The annexs were macroscopically normals. The rigth broad ligament was incised with the diathermy loop, vertically, in a quarter, opposite the mass and contiguous with the right lateral wall of the uterus (figure 2).

Figure 2: gentle traction of leiomyoma from its shell

Once the shell of the mass and the cleavage plane had been identified, dissection was performed close to the mass using gentle traction to avoid damaging the uterine vessels and ureter; enucleation was then performed (figure 3).

Figure 3: image of the uterus after removal of the broad ligament myoma

Finally, we performed a hysteroraphy in two planes (figure 4) and placed a drain.

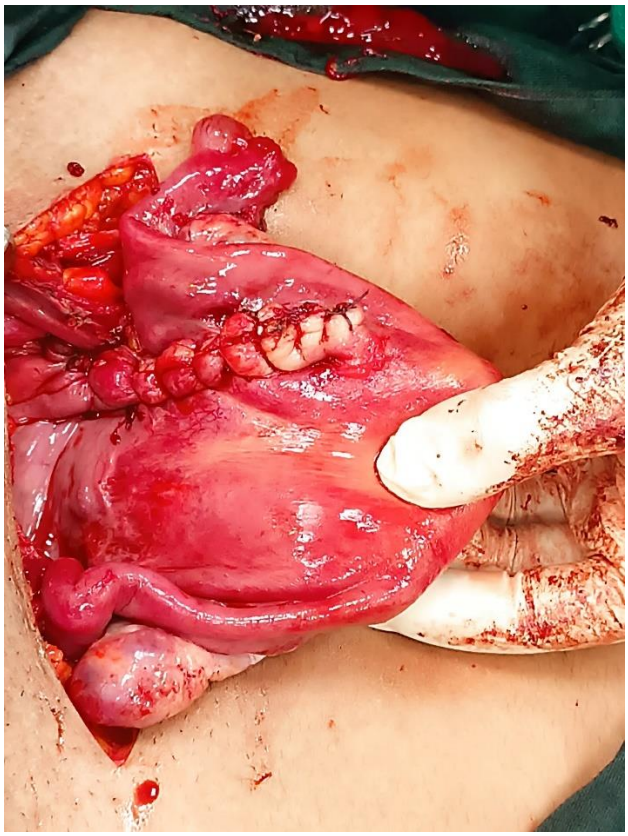

Figure 4: uterus after hysteroraphy

The post-operative course was straightforward. Histopathological analysis of the mass confirmed uterine leiomyoma. Three weeks after surgery, the patient underwent post-myomectomy laparoscopy, during which we performed utero-parietal adhesiolysis (fig. 5) and checked tubal patency (methylene blue test positive bilaterally).

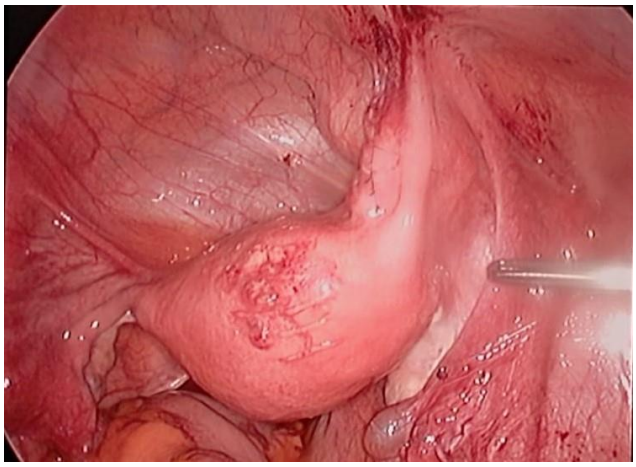

Figure 5: image of the patient's pelvis during post-myomectomy laparoscopy

DISCUSSION

Broad ligament fibroma is a benign smooth muscle tumour arising from the hormone-sensitive smooth muscle of the broad ligament or secondarily from the uterine smooth muscle [5, 6]. Ectopic leiomyoma, which frequently occurs in the broad ligament, is usually asymptomatic. In the patient presented, the symptoms were a sensation of a ball in the abdomen, pelvic heaviness and menorrhagia. These symptoms were probably related to the size of the myoma, i.e. a mass with a long axis of 12 cm that could easily be palpated suprapubically by the patient herself. The volume of the mass, estimated at 864 mm^3, would also make her feel unusually heavy. In this case, the menorrhagia could be explained by the upward displacement of the uterus, which would reduce the contractility of the uterine muscle and disrupt primary haemostasis.

Three paraclinical examinations are most often used to map myomas and define their dimensions: transvaginal ultrasound, hysterosonography and Magnetic Resonance Imaging. Transvaginal ultrasound is the examination of first choice. The ultrasound appearance in this patient was inconclusive because the mass was lateral to the uterus, with a thin, finely particulate wall. This description, together with the fact that the right ovary was not visible, suggested an ovarian tumour requiring further investigation. Given the patient's risk factors (black woman, 37 years old) and clinical features, we ordered a hysterosonogram. The results of the hysterosonogram were inconsistent with those of the ultrasound, but confirmed the origin of the tumour (uterine). With hindsight, we should have considered ordering an MRI scan straight away (after the ultrasound scan), given the location of the mass lateral to the uterus. Knowledge of the various anatomical structures, such as the broad ligament, is important. Fibroids of the broad ligament generally pose a diagnostic problem on imaging. Appearing adnexal, they may be confused with ovarian tumours [7, 8] or be the subject of another histological diagnosis following myomectomy; histology of a presumed broad ligament fibroma revealed the presence of a pelvic schwannoma [9]. The most useful modalities for detecting ectopic leiomyomas are ultrasound, CT scan and magnetic resonance imaging (MRI) [10, 11, 12]. It is possible to mistake a briad ligament leiomyoma for a cystic ovarian tumour, even with CT scan [13]. While transvaginal ultrasound is useful for diagnosing broad ligament fibroids (allowing visual separation of the uterus and ovaries from the mass), MRI, with its multiplanar imaging capabilities, may be more useful for differentiating broad ligament fibroids from masses of ovarian or tubal origin and broad ligament cysts. [5]

The differential diagnosis of broad ligament fibroids includes pedunculated subserosal leiomyoma projecting to the broad ligament, solid ovarian neoplasia: In particular those whose dominant fibrous components tend to be inseparable from the ovary such as ovarian fibroid or fibrothecoma and Brenner's tumours, broad ligament cyst and lymphadenopathy. On pelvic ultrasound, the fibroid usually presents as a hypoechoic, solid, well-circumscribed adnexal mass, although it may be heterogeneous when large. There is usually no interface between the tumour and the uterus, nor any direct relationship with the ipsilateral ovary, with relay vessels between the uterus and the mass in the case of a protruding subserous fibroid and absent in the case of a broad ligament[14].

Because of the location and size of the broad ligament fibroids, surgery is difficult, with excision of the uterus being the only option. Some authors described laparoscopic myomectomy, temporary ligation of ipsilateral uterine artery at the origin in a patient with a 9 cm myoma [15]. In our case, although the surgical approach was laparotomy, which is more hemorrhagic, we did not find it necessary to perform uterine artery ligation.

CONCLUSION

We report broad ligament fibroid to emphasize the diagnostic difficulties and surgical complications they can pose. The presence of any mass lateral to the uterus should raise suspicion to a broad ligament myoma and if possible advance imaging technique like MRI should be used to confirm the diagnosis. During myomectomy, one should be very careful about the ureteric course and surrounding organs, we should keep dissection in the plane of cleavage within the capsule in other to avoid ureteric and uterine vessel injury. At the base of the myoma, avoid avulsion and traction of the myoma from its base. Securing hemostasis at the bed of the myoma can be done by simple suturing taking care of the ureteric course. Excision of the myoma has to be quick to limit blood lose and a proper hysterorrhaphy done to avoid a concealed hematoma.

DECLARATIONS

Authors'contribution

- Pascale E. MPONO : Management of the patient and writing of the article
- Vanina AKAM NGONO : Post-operative follow-up of the patient and proofreading of the article

- Serge NYADA : Post-operative follow-up of the patient and proofreading of the article
- Christiane NSAHLAI : Translation and proofreading of the article
- Junie Annick NTSAMA METOGO : Proofreading the article
- Anny NGASSAM : Supervision during the article
- Mohammed A. SULE : Surgical assistance and literature search
- Claude Cyrille NOA NDOUA : Supervision during surgery, proofreading of the article

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Conflicts of intérêst
None

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