





Laparoscopic management of ovarian parasitic myoma: a case report

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ABSTRACT

Background: Ovarian leiomyoma is very rare and constitutes 0.5%-1% of ovarian benign masses. Although most adnexal masses are benign, primary purpose of the assessment is to eliminate any malignancies. The most important issue in the evaluation of ovarian masses is to differentiate between malignant and benign masses. Laparoscopy is an important diagnostic and minimally invasive method for these purposes.

Case Presentation: In this paper, we present a case report on laparoscopic evaluation of a patient who was diagnosed with right ovarian spontaneous parasitic myoma and who did not have a history of uterine surgery.

Conclusion: Uterine ovarian myoma is extremely rare and can be confused with malignant ovarian masses. Laparoscopy option should be considered as the primary approach in the management of masses with suspicious location and appearance and in the differentiation of benign and malignant.

Keywords: Ovary, leiomyoma, adnexal mass, laparoscopy.

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Background

Uterine leiomyoma is the most common benign tumor of the female pelvis and uterus [1]. The prevalence of uterine leiomyoma is approximately 25% of reproductive-age women [1]. Post mortem autopsy studies show a prevalence of 50% [1]. Symptomatic patients usually require surgical treatment and uterine leiomyoma is the most common cause of hysterectomy [2].

In some cases, uterine stem fibroids may bind to neighboring organisms, peritoneum or omentum, losing primary focusing blood, and gaining a secondary circulation source. These fibroids are called parasitic fibroids. Sometimes the treatment of parasitic myomas may prove very difficult due to reasons like vascular, intestinal, and mesenteric invasion [3]. In this paper, we aimed to present a case report related to the laparoscopic approach we performed on a patient diagnosed with right ovarian spontaneous parasitic myoma and who had no prior uterine surgery history.

Case Presentation

A 30-year-old female patient with gravida 3, para 1 (normal spontaneous vaginal delivery), abortion 2 was admitted to our outpatient clinic with inguinal pain for 3 months. In her gynecological examination, there was right adnexal sensitivity and distension; however, uterus

and both ovaries were observed as normal in her transvaginal ultrasonography. Serum tumor markers CA-125 (14.4 U/ml) and HE4 (8.1 pmol/l) were within the normal reference range and β -human chorionic gonadotropin was negative. A lower abdominal wall magnetic resonance imaging (MRI) examination was performed due to the observation of a suspected area with regular boundaries at the anterior adjacency of the uterus. On MRI examination, both ovaries were normal and after intravenous contrast agent administration, there was a homogeneous, contrast-enhancing mass of 66*49*37 mm.

Laparoscopy was planned. In the laparoscopic observation of the patient, the upper abdominal organs, uterus, and left ovary were in normal appearance. However, right ligamentum ovarii proprium appeared longer than normal (Figure 1). In addition, an approximately 6*6 cm mass with a solid, rigid, and vascular structure, similar to ovarian tissue, attached to the right ovary with a peduncle was observed (Figure 2). The mass was separated from the right ovary with LigaSure™. The released mass was then extracted with colpotomy using an endobag (Figures 3 and 4). Mass was delivered for frozen section and its pathology results were assessed as leiomyoma. The operation was completed after colpotomy repair. The patient was discharged in a healthy condition on postoperative

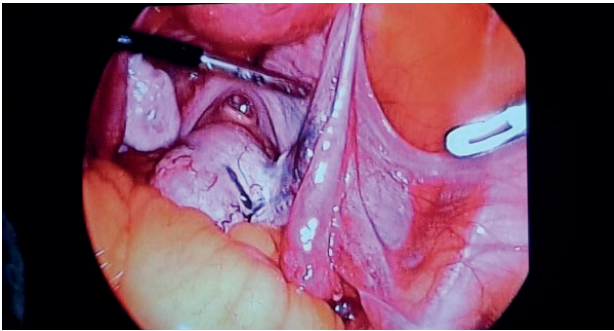


Figure 1. Right ovarian leiomyoma and the extended appearance of ligamentum ovarii proprium.

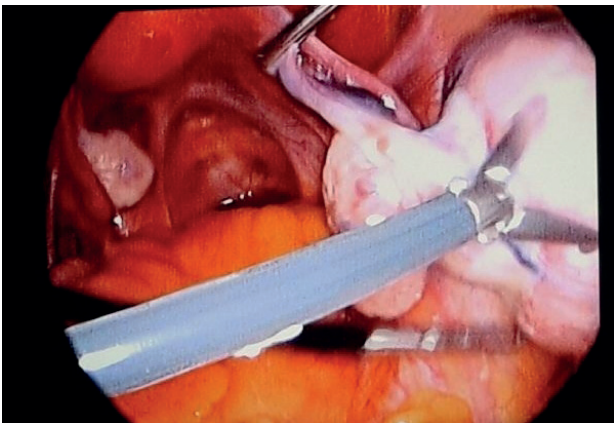


Figure 2. Right ovarian leiomyoma.

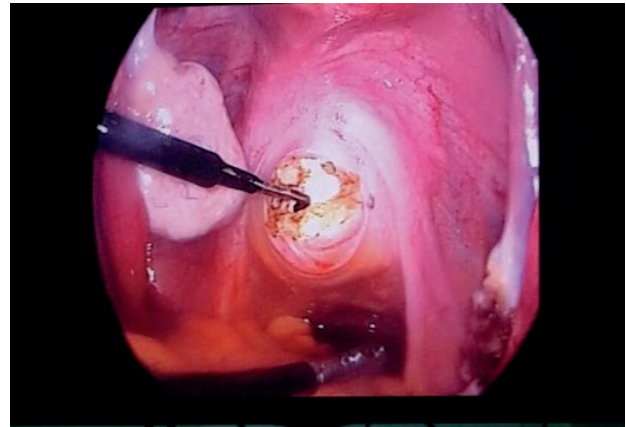


Figure 3. Removal of the leiomyoma by posterior colpotomy.



Figure 4. Leiomyoma after excision.

second day. The final pathology result of the extracted mass was reported to be consistent with leiomyoma.

Discussion

Uterine leiomyomas are benign monoclonal tumors originating from the smooth muscles of the myometrium. Uterine fibroids are the most common pelvic tumors in women, whereas parasitic fibroids are very rare. There are different theories in the formation of rare fibroids other than uterus. It is thought that parasitic leiomyomas are in fact actually pedunculated subserosal leiomyomas which can be monitored freely in the peritoneum and provide their own blood supply by neovascularization. In fact, disseminated peritoneal leiomyomatosis is thought to be caused by diffuse peritoneal metastasis [4].

Ovarian leiomyoma is very rare and constitutes 0.5%-1% of ovarian benign masses [5]. Ovarian leiomyoma is common in nulligravids and is often unilateral. Also, most leiomyomas of the ovary are small, usually less than 3 cm in diameter [6]. Consistent with the literature, our case included a unilateral right ovarian leiomyoma. Most of the patients are asymptomatic or present with mild abdominal pain, as in our case. In contrast, Meigs' syndrome caused by giant ovarian leiomyoma with ascites, hydrothorax and/or hydronephrosis or slightly elevated levels of tumor marker CA-125 [7].

In the differential diagnosis of ovarian leiomyomas, fibroma-terkoma and leiomyosarcoma which is a rare tumor in

ovary should be considered. Especially, it can be difficult to distinguish leiomyomas from fibromas. The clinical findings of these two are similar. They are both asymptomatic, usually unilateral and appear in the fifth decade. Their macroscopic appearance is similar. Microscopically, blunt nuclei of leiomyoma cells and their presence in perinuclear halo may be helpful. Specific histochemical stains such as Van Gieson and especially immunohistochemical Desmin and SMA positivity are very important in differential diagnosis [8]. Leiomyosarcomas, on the other hand, are more easily distinguishable by being rich in cells and containing between 4 and 25 mitosis in 10 large magnification areas [9].

Although most adnexal masses are benign, primary purpose of the assessment is to eliminate any malignancies. It is not possible to detect malignancy with 100% sensitivity preoperatively and the masses often require surgical evaluation. Laparoscopy is an important diagnostic and minimally invasive method for such purposes [10,11]. Laparoscopy; less blood loss, faster return of intestinal functions, shorter hospital stay, reduced incidence of wound infection, less incisional hernia probability, cosmetic advantages, and one of the perioperative advantages of staging in ovarian cancers is one of can be done in a way. It is also easier to obtain intraperitoneal fluid for cytology laparoscopically. Studies have shown similar recurrence rates as a result of staging by laparoscopic or laparotomy [12,13]. In our case, although the

clinical examination of the patients was not consistent with ultrasonography and MRI, primary approach was laparoscopy due to young age of the patient and small size of the mass.

Conclusion

Diagnosis and approach can be difficult due to abnormal localization of parasitic fibroids. Sometimes, ultrasonography and MRI may not give clear results about the origin of the mass. In preoperative evaluation, most benign masses are unnecessarily evaluated by laparotomy because of high false-positive results in the diagnosis of malignancy. Therefore, suspected adnexal masses should be evaluated intraoperatively primarily by laparoscopy.

What is new?

Laparoscopic approach can be preferred over laparotomy for diagnosis and treatment for its less invasive technique in the assessment of the appearance and localization of the mass.

List of Abbreviations

HCG	Human chorionic gonadotropin
MRI	Magnetic resonance imaging
USG	Ultrasonography

Funding

None.

Conflict of interests

The authors declare that there is no conflict of interest regarding the publication of this article.

Consent for publication

Informed consent was obtained from the patient for this case to be published in a medical journal.

Ethical approval

Ethical approval is not required at our institution to publish an anonymous case report.

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Summary of the case

1	Patient (gender, age)	Female, 30 years old
2	Final diagnosis	Ovarian parasitic myoma
3	Symptoms	Inguinal pain ongoing for 3 months
4	Medications	Surgery
5	Clinical procedure	Laparoscopic myomectomy
6	Specialty	Gynecology and Obstetrics