Case Report

Ovarian Fibroma Commonly Misdiagnosed as Uterine Leiomyoma

Ibrahim A. Abdelazim[1,2]*, Mohannad Abu-Faza[2], Khaled Abdelrazek[1], Osama O. Amer[3], Svetlana Shikanova[4], Gulmira Zhurabekova[5]

[1]Department of Obstetrics and Gynecology, Ain Shams University, [3]Department of Obstetrics and Gynecology, Ghamra Military Hospital, Cairo, Egypt, [2]Department of Obstetrics and Gynecology, Ahmadi Hospital, Kuwait Oil Company, Ahmadi, Kuwait, Departments of [4]Obstetrics and Gynecology №1 and [5]Normal and Topographical Anatomy, Marat Ospanov, West Kazakhstan State Medical University, Aktobe, Kazakhstan

Abstract

Ovarian fibroma usually misdiagnosed preoperatively as uterine leiomyoma. A 36-year-old woman, presented with abdominal pain and vomiting, provisionally diagnosed as complicated ovarian cyst. The transvaginal ultrasound and Doppler showed left solid adnexal mass with preserved ovarian blood flow. Magnetic resonance imaging showed a well-defined solid mass in the left side of the pelvis, measuring 8 cm × 10 cm most probably subserous uterine leiomyoma. At laparotomy, the solid ovarian mass was originating from the left ovary, and the microscopic examination confirmed the diagnosis of the ovarian fibroma. This report represents the preoperative misdiagnosis of the ovarian fibromas and the conservative ovarian surgery for the ovarian fibromas and the importance of the follow-up for future fertility and/or recurrence of the fibromas in young women.

Keywords: Fibroma, leiomyoma, misdiagnosed, ovarian, uterine

Introduction

Ovarian fibroma is a benign tumor that belongs to the sex cord-stromal ovarian tumors.[1] It is the most common solid ovarian tumor and usually misdiagnosed preoperatively as uterine leiomyoma.[2-4] The incidence of the ovarian fibroma is 1%–4% of all ovarian tumors.[1]

Ascites and pleural effusion can be occasionally seen as an association with the ovarian fibroma and known as Meigs' syndrome.[2-4]

The tumor marker CA-125 sometimes increased with the ovarian fibroma with subsequent misdiagnosis of the ovarian fibroma as endometriosis and/or malignant ovarian tumor.[5] Ovarian fibroma is usually diagnosed in women >40 years and postmenopausal women.[6] Recurrent multiple fibromas including ovarian fibroma reported in young women with Gorlin syndrome (nevoid basal cell carcinoma syndrome).[7-9]

To highlights the preoperative misdiagnosis of the ovarian fibromas and the conservative ovarian surgery for the ovarian fibromas. The importance of the follow-up for future fertility and/or recurrence of the fibromas in young women (Gorlin syndrome).

Case Report

A 36-year-old woman presented with abdominal pain and vomiting. She was provisionally diagnosed as a complicated ovarian cyst and received intravenous paracetamol as an analgesic. The transvaginal ultrasound and Doppler studies showed left solid adnexal mass of 10 cm × 8 cm with preserved ovarian blood flow (ovarian torsion excluded).

Magnetic resonance imaging (MRI) showed a well-defined solid hypointense mass in the left side of the pelvis, measuring

Article History:
Received 3 January 2019
Received in revised form 11 April 2019
Accepted 25 April 2019
Available online 18 September 2019

Access this article online

Quick Response Code:

Website: www.e-gmit.com

DOI: 10.4103/GMIT.GMIT_131_18

Address for correspondence: Dr. Ibrahim A. Abdelazim, Department of Obstetrics and Gynecology, Ahmadi Hospital, Kuwait Oil Company, Kuwait, P.O. Box: 9758, 61008 Ahmadi, Kuwait.
E-mail: dr.ibrahimanwar@gmail.com

How to cite this article: Abdelazim IA, Abu-Faza M, Abdelrazek K, Amer OO, Shikanova S, Zhurabekova G. Ovarian fibroma commonly misdiagnosed as uterine leiomyoma. Gynecol Minim Invasive Ther 2020;9:36-8.

8 cm × 10 cm in contact with the anterior uterine wall most probably subserous anterior wall uterine leiomyoma or less likely left ovarian in origin.

The studied woman signed written consent and agreed for exploratory laparotomy and myomectomy for the subserous fibroid (more likely) or excision of the ovarian mass with preservation of ovarian tissue as much as possible if the mass originated from one of the ovaries (less likely).

The preoperative investigations done according to the hospital protocol were normal; the complete blood picture (hemoglobin: 12.5 gm/dl, total leukocyte count: 7.500/mm^3, and platelet count 226,000/mm^3), liver (aspartate aminotransferase: 22 IU/l and alanine aminotransferase: 35 IU/l), and kidney function tests (serum creatinine: 0.9 mg/dl and blood urea nitrogen: 18 mg/dl) and prothrombin time (12 s with 1.0 Internationalized Normalized Ratio).

Exploratory laparotomy was done, and at laparotomy, the solid ovarian mass was originating from the left ovary, measuring 10 cm × 8 cm. The right ovary and the uterus were completely normal [Figure 1].

The left ovarian mass was excised [Figure 2], and more than half of the left ovary was preserved for future fertility. The ovarian reserve and the tumor markers were checked in the blood sample taken preoperatively for cross-matching (anti-Mullerian hormone was 2.3 ng/ml, inhibin B was 55 pg/ml, and CA-125 was 28 IU/ml). The microscopic examination of the mass showed bundles of spindle cells without mitotic activity, which confirm the diagnosis of the ovarian fibroma. The patient was discharged on the 3rd postoperative day for follow-up every 3 months for the recurrence of the fibroma and for the ovarian reserve markers.

Written consent and local ethical committee approval were obtained to present the studied case as a case report.

Discussion

Ovarian fibroma is usually misdiagnosed preoperatively as uterine leiomyoma or malignant ovarian tumors.[2-4] Leung *et al*. found that 34% of ovarian fibromas were misdiagnosed preoperatively as uterine leiomyoma.[4]

Son *et al*. reported five cases of laparoscopic ovarian cystectomy in a retrospective review of 47 women with ovarian fibromas.[6]

Târcoveanu *et al*. reported a series of 15 ovarian fibromas managed by ovariectomies (five cases), adnexal resection (three cases), and total hysterectomies with bilateral salpingo-oophorectomy (five cases).[10]

The diagnosis of ovarian fibroma in Târcoveanu *et al*. study was suggested by the high-resolution ultrasound and color Doppler in ten cases, whereas computerized tomography (CT) and MRI were suggestive for the diagnosis of ovarian fibroma in three cases only.[10]

The studied case was provisionally diagnosed as a complicated ovarian cyst and revaluated by MRI when the transvaginal ultrasound showed the solid nature of left adnexal mass. MRI showed a well-defined solid hypointense mass in the left side of the pelvis, most probably subserous anterior wall uterine leiomyoma or less likely left ovarian in origin.

At exploratory laparotomy, the solid ovarian mass was originating from the left ovary, measuring 10 cm × 8 cm.

The left ovarian mass was excised, and more than half of the left ovary was preserved for future fertility. The postoperative histologic examination of the excised mass confirmed the diagnosis of the ovarian fibroma.

Ovarian preservation mostly reported in young women with multiple and recurrent fibromas (Gorlin syndrome).[7-9]

Najmi *et al*. reported laparoscopic resection of 15-cm unilateral ovarian fibroma with ovarian preservation in a 24-year-old

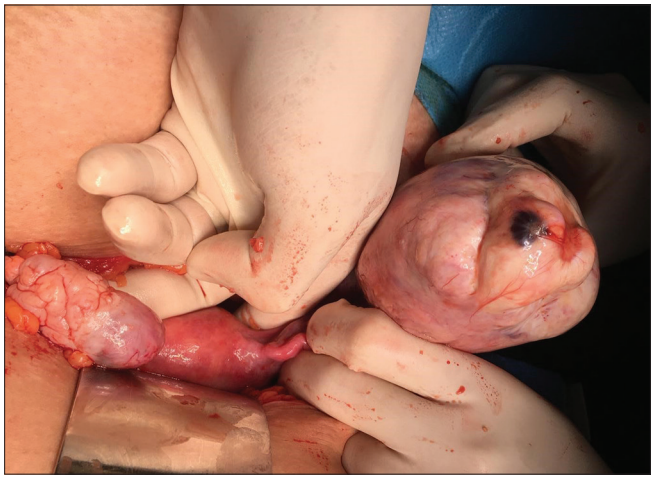

Figure 1: Left ovarian solid mass with normal right ovary and uterus

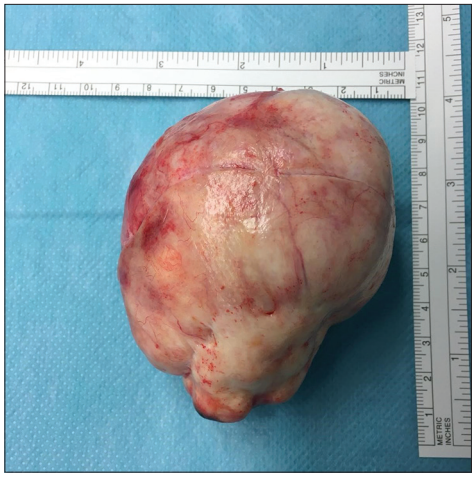

Figure 2: The excised solid ovarian mass measuring 10 cm × 8 cm

woman,[1] and they concluded that it is accepted to remove the ovarian fibroma either laparoscopically or laparotomy, especially when the preoperative diagnosis is not clear.[1]

In addition, they concluded that the laparoscopic removal of the ovarian fibroma might be challenging, especially in large tumors.[1]

Najmi *et al*. concluded that salpingo-oophorectomy should be considered in perimenopausal or postmenopausal women, whereas cystectomy should be considered in young women with ovarian fibromas.[1]

The studied case was managed by excision of the left ovarian mass with conservation of more than half of the ovary for future fertility. The ovarian reserve markers were normal in the blood sample taken preoperatively for cross-matching. The patient discharged home for follow-up for the recurrence of the fibroma and for the ovarian reserve markers.

This report highlights the preoperative misdiagnosis and the conservative ovarian surgery which should be considered in young women with ovarian fibromas. In addition, this report highlights the importance of the postoperative follow-up for future fertility and/or recurrence of the fibromas, which reported in young women (Gorlin syndrome).

Conclusion

Ovarian fibromas are often misdiagnosed preoperatively as uterine leiomyoma and sometimes mistaken as malignant ovarian tumor. Surgical excision of the ovarian fibroma is the traditional treatment option in the form of salpingo-oophorectomy in perimenopausal or postmenopausal women and cystectomy in young women through laparotomy or minimally invasive laparoscopic surgery.

Ethical approval

The local Obstetrics and Gynecology Department Ethical Committee of Ahmadi hospital has approved this study. The Institutional Review Board Project (approval number) OBGYN_REC_18.11.15 obtained on 15th November in 2018.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understand that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

Acknowledgment

The authors are grateful to the studied woman who agreed and gave consent to participate in this case report.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Najmi Z, Mehdizadehkashi A, Kadivar M, Tamannaie Z, Chaichian S. Laparoscopic approach to a large ovarian fibroma: A case report. J Reprod Infertil 2014;15:57-60.
2. Chechia A, Attia L, Temime RB, Makhlouf T, Koubaa A. Incidence, clinical analysis, and management of ovarian fibromas and fibrothecomas. Am J Obstet Gynecol 2008;199:473.e1-4.
3. Nocito AL, Sarancone S, Bacchi C, Tellez T. Ovarian thecoma: Clinicopathological analysis of 50 cases. Ann Diagn Pathol 2008;12:12-6.
4. Leung SW, Yuen PM. Ovarian fibroma: A review on the clinical characteristics, diagnostic difficulties, and management options of 23 cases. Gynecol Obstet Invest 2006;62:1-6.
5. Patsner B. Meigs syndrome and "false positive" preoperative serum CA-125 levels: Analysis of ten cases. Eur J Gynaecol Oncol 2000;21:362-3.
6. Son CE, Choi JS, Lee JH, Jeon SW, Hong JH, Bae JW. Laparoscopic surgical management and clinical characteristics of ovarian fibromas. JSLS 2011;15:16-20.
7. Ball A, Wenning J, Van Eyk N. Ovarian fibromas in pediatric patients with basal cell nevus (Gorlin) syndrome. J Pediatr Adolesc Gynecol 2011;24:e5-7.
8. Aram S, Moghaddam NA. Bilateral ovarian fibroma associated with Gorlin syndrome. J Res Med Sci 2009;14:57-61.
9. Seracchioli R, Bagnoli A, Colombo FM, Missiroli S, Venturoli S. Conservative treatment of recurrent ovarian fibromas in a young patient affected by Gorlin syndrome. Hum Reprod 2001;16:1261-3.
10. Târcoveanu E, Dimofte G, Niculescu D, Vasilescu A, Moldovanu R, Ferariu D, *et al.* Ovarian fibroma in the era of laparoscopic surgery: A general surgeon's experience. Acta Chir Belg 2007;107:664-9.