International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Yaramareddy S et al. Int J Reprod Contracept Obstet Gynecol. 2017 Oct;6(10):4694-4696
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: http://dx.doi.org/10.18203/2320-1770.ijrcog20174466

Case Report

Ovarian fibroma with a twist!

Swapna Yaramareddy*, Lakshmi Shanmughasundaram, Senthil Kumar, Sarah Kuruvilla, Latha M., Thankam Varma

Institute of Reproductive Medicine and Women's Health, Madras Medical Mission, Mogappair, Chennai, Tamil Nadu, India

Received: 21 May 2017
Revised: 21 August 2017
Accepted: 31 August 2017

***Correspondence:**
Dr. Swapna Yaramareddy,
E-mail: drswapnasrinath@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Ovarian fibromas are the most common benign solid tumor of the ovary and usually are large and asymptomatic. It can mimic several conditions hence it can often be misdiagnosed pre-operatively. In this case the pre-operative diagnosis was bilateral ovarian tumor with endometrial hyperplasia. The final diagnosis was a torsion left ovarian fibroma with an area of hemorrhagic infarction and a benign endometrial polyp. The benefit of a multidisciplinary team approach and the challenges faced during the peri-operative period are discussed.

Keywords: Ovarian Fibroma, Post menopausal age, Torsion

INTRODUCTION

Ovarian fibroma is a benign condition constituting 1% to 4% of all the ovarian tumours.[1] This postmenopausal lady presented with minimal symptoms. There was a low risk of malignancy on imaging and CA-125 hence the provisional differential diagnosis was ovarian fibroma. But due to age, bilateral ovarian lesion and endometrial thickening exclusion of a malignancy was vital. Hence surgery with intra-operative frozen section was planned in conjunction with the oncologist. The intra-operative findings were benign but uncommon. Hence this case is presented to demonstrate the peri-operative diagnostic and management dilemmas.

CASE REPORT

75-year-old Mrs A, presented with two months duration of vague lower abdominal pain. She was initially evaluated in her hometown and diagnosed to have pelvic mass. At her hometown, she underwent a laparotomy 1 month ago. Due to significant pelvic adhesions a diagnosis could not be arrived at laparotomy. Hence, she came for a second opinion to our centre.

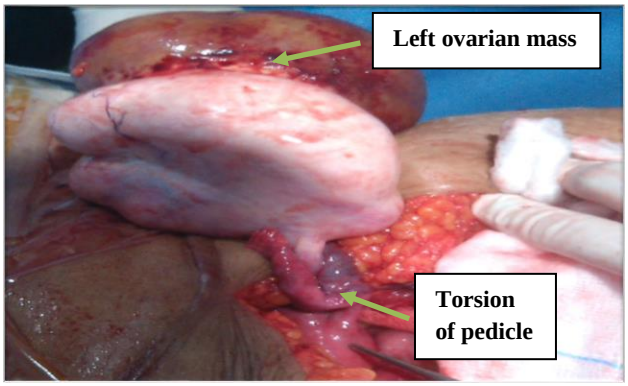

Figure 1: Left ovarian mass of 7 x 10 cm with cystic component of 6x6 cm seen with 1+1/2 twist at pedicle.

She reported lower abdominal discomfort, not requiring analgesia and with no other systemic symptoms. She was

obese with increased abdominal adiposity. A hard non tender mass of 10x15 cm with limited mobility was palpable in the suprapubic area. There was cervical descent to the level of introitus without anterior or posterior vaginal wall prolapse (history of 5 previous normal deliveries). On bimanual examination, small acute retroverted uterus was felt. A 10 cm hard irregular mass was palpable in the right fornix with limited mobility. On rectal examination, rectal mucosa was free. There was no mass felt in the pouch of Douglas.

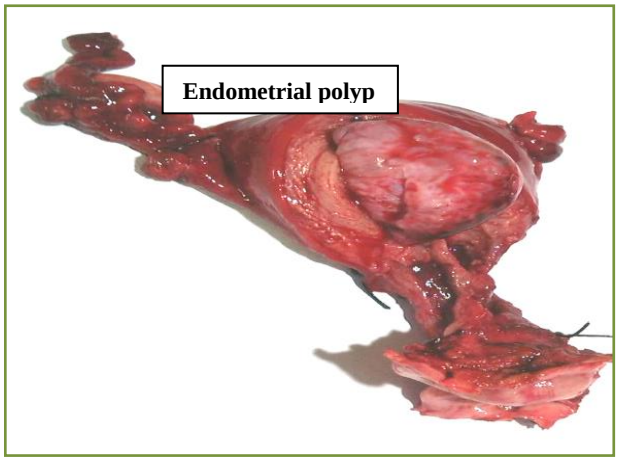

Figure 2: Cut section of endometrial cavity with 3x3 cm fleshy polyp.

CA-125 was 47.7 U/ml (normal value <35 U/ml) and CEA was 2.2 ng/ml (normal range<3ng/ml). Pelvic ultrasound scan revealed bilateral ovarian mass, right adnexal solid mass of 68x84 mm and left adnexal mass measuring 69x51 mm. Thickened endometrium of 25mm with cystic spaces was seen. There was no ascites. Abdominal organs were normal. Similar findings were noted on CT scan.

The initial working diagnosis was of a benign bilateral ovarian tumor. Endometrial evaluation was planned, to rule out concomitant endometrial malignancy. Hysteroscopy assessment was done with saline irrigation. Under direct vision there was an easy passage until 6 cm but ending blindly thereafter. Procedure was abandoned without entry into uterine cavity despite use of ultrasound guidance and 2mm dilators.

Exploratory midline laparotomy was performed after obtaining an informed consent and completing pre-operative work-up. Intra operative frozen section was arranged. Intra operative findings were:

- Dense adhesions of the bowel to the anterior abdominal wall and left ovary
- No free fluid in the peritoneal cavity
- Left solid ovarian mass of 7 x 10 cm with cystic component of 6 x 6 cm (image 1) was noted to be lying anterior to the uterus
- Torsion of left ovarian mass was noted with 1 + ½ twist at the pedicle
- Uterus with an elongated cervix measuring 13 x 7 cm. Stenosis of the internal os was noted. Cut section of the uterus showed a 3 x 3cm fleshy polyp in the upper endometrial cavity. (image 2)
- Right ovary and fallopian tube, omentum, and liver were normal. No pelvic or paraaortic lymphadenopathy.

Frozen section of left salpingo-oopherectomy showed benign spindle cell tumor, probably fibroma with areas of hemorrhagic infarction. Frozen section of endometrial polyp showed features of benign endometrial glandular polyp with no evidence of malignancy. Total abdominal hysterectomy with bilateral salpingo-oopherectomy was performed. Cervical stenosis, distortion of pelvic anatomy with acute retroversion of the uterus and elongated cervix were noted to be reasons for the failed hysteroscopy.

Postoperative period was uneventful with antibiotics, analgesics and thrombo-prophylaxis. She was discharged home in a stable condition on twelfth postoperative day.

Final histopathology report showed

- Left fibroma ovary with one nodule showing hemorrhagic infarction.
- Benign glandular endometrial polyp, with cystoglandular changes.
- Chronic papillary endo-cervicitis with focal squamous metaplasia.

DISCUSSION

Ovarian fibromas and fibrothecomas are benign tumors arising from mesenchymal spindle cells, which produce collagen.[1]Ovarian fibroma is seen in the fourth and fifth decade of life with mean age of 53 years. This patient was much older compared with the common age group.

Ovarian fibromas are often asymptomatic despite their large size. They can manifest with abdominal enlargement, urinary symptoms, abdominal pain and occasionally torsion.[1-3] Ovarian torsion is usually associated with significant pain. This lady only had minimal pain despite the large size and necrotic changes due to torsion.

Ovarian fibromas pose an imaging challenge. They appear as solid masses mimicking a malignant neoplasm. On ultrasound, fibromas were solid, hypoechoic (70%), posterior acoustic shadowing (44-56%) or homogenous (9%). But a typical appearance it is present only in 44-70%.[4] The sonographic appearance can be variable and some tumors can have cystic components (24%) due to degenerative changes.[5,6]

On CT, fibroma usually appears as homogeneous solid tumour with delayed enhancement. CT and MRI findings are relatively better at diagnosis of fibroma.[7] In this case as both the solid and cystic components were located side by side in the suprapubic area, there was an impression of two different masses arising from each ovary. Metatstatic tumours from breast and rarely gastric also present as solid bilateral lesions and its exclusion is vital in this age group. Hence breast screening with mammogram, clinical examination and upper gastro intestinal endoscopy was undertaken in this case.

Ovarian fibroma can sometimes have elevated CA-125 levels especially with torsion due to necrosis and inflammation.[8] In this case despite a large size and torsion, the elevation in CA-125 level was only marginal.

Laparotomy with frozen section was planned due to bilateral ovarian mass and an endometrial lesion. Overall accuracy of frozen section the diagnosis of ovarian tumour ranges from 86-97%.[9] Especially with large solid tumours there are limitations as only limited number of frozen sections can be examined within a short time span. Also at frozen section the thicker sections compared to permanent sections along with freezing artefacts can obscure the finer details. Among solid ovarian lesions fibrothecoma, Brenners tumour, malignancy (2%) have to be considered in this age group. In this patient, the white colour on cut section helped exclude thecoma which have a yellowish tinge. There was no mitotic activity noted which helped to exclude malignancy and mitotically active cellular fibroma (MACF). There are case reports in younger age groups of uterine endometroid adenocarcinoma associated ovarian fibroma containing a minor sex cord element or ovarian endometrioma.

After frozen section was completed, total hysterectomy and bilateral salpingo-oopherectomy was the treatment of choice. Frozen section took about 30 minutes to complete as both ovaries and endometrium needed to be evaluated. Frozen section helped to avoid radical pelvic clearance and its associated peri-operative morbidity.

There were several risk factors in this case. Intra-operative risk factors were midline incision, extensive adhesiolysis, ovarian torsion that can cause systemic inflammatory response, prolonged surgical time and preoperative risk factors were age, obesity, recent laparotomy, hypertension. Intraoperative antibiotic prophylaxis and peri-procedure thrombo prophylaxis were administered and wound care maintained along with early ambulation. Joint care by Gynecologists, Sonologist, Lab services, Radiologists, Theatre and nursing staff, Anaesthetists, Oncologist, Pathologists and Physiotherapist played a vital role for this patient to have an uneventful perioperative period. Mrs A had an optimal good outcome due to multidisciplinary team approach to her care.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. 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.e1-473.e4.
2. 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.
3. Sivanesaratman V, Dutta R, Jayalakshmi P. Ovarian fibroma, clinical and histopathological characteristics. Int J Gynecol Obstet. 1990;33:243-7.
4. Chen H, Liu Y, Shen LF, Jiang MJ, Yang ZF, Fang GP. Ovarian thecoma-fibroma groups: clinical and sonographic features with pathological comparison. J Ovarian Res. 2016;9(1):81.
5. Athey PA, Malone RS. Sonography of ovarian fibromas/thecomas. J Ultrasound Med. 1987;6:431-6.
6. Stephenson WM, Lang FL. Sonography of ovarian fibromas. Am J Radiol. 1985;144:1241-3
7. Yen P, Khong K, Lamba R, Corwin M.T, Gerscovich E.O. Ovarian fibromas and fibrothecomas sonographic correlation with computed tomography and magnetic resonance imaging :a 5-Year Single-institution experience. J Ultrasound Med. 2013;32(1):13-8.
8. Spinelli C, Gadducci A, Bonadio AG, Berti P, Micolli P. Benign ovarian fibroma associated with free peritoneal fluid and elevated serum CA 125 levels. Minnerva Ginecol. 1999;51:403-7
9. Abudukadeer A, Azam S, Zunong B, Mutailipu AZ, Huijun B, Qun L. Accuracy of intra-operative frozen section and its role in the diagnostic evaluation of ovarian tumors. Eur J Gynecol Oncol. 2016;37(2):216-20.

Cite this article as: Yaramareddy S, Shanmughasundaram L, Kumar S, Kuruvilla S, Latha M, Varma T. Ovarian fibroma with a twist!. Int J Reprod Contracept Obstet Gynecol 2017;6:4694-6.