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Case Report

Surgical management of torsion of ovarian fibroma: a case report

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ABSTRACT

Ovarian fibromas are solid tumors that belong to sex-cord stromal cell tumors of the ovary and are composed of fibrous tissue. They are the most common benign solid tumors of the ovary. The clinical presentation is variable and can include abdominal pain, bloating and menstrual irregularities. In some cases, the first presentation can be that of torsion. This case report presents a case of a 28-year-old who presented with features suggestive of ovarian torsion. Diagnostic difficulty was faced due to the complex appearance of the mass and presenting age of the patient. However, the Computed Tomography (CT) reported a large 12cm multiloculated cystic lesion likely ovarian in origin. Our patient underwent a laparotomy successfully. The diagnosis was confirmed by histopathology.

Keywords: Ovarian fibroma, Sex cord tumor, Torsion, Iliac fossa tenderness, Adnexal mass

INTRODUCTION

Ovarian fibromas are sex cord solid tumors of the ovary that account for 1-4% of all benign tumors.[1,2,8] They commonly present between fifth and sixth decades of life. Presentation may be asymptomatic while some patients present with non-specific symptoms such as lower abdominal pain, pressure symptoms and abdominal fullness. It may also be associated with Meigs syndrome (triad of ovarian mass with ascites and pleural effusion)[5]. The pre-operative diagnosis of ovarian fibromas is difficult and often challenging with most misdiagnosed as uterine myomas or as malignant ovarian tumors. Often, presentation can be of acute gynecological emergency needing intervention like ovarian torsion.[3] We report a case of ovarian fibroma in a young woman who presented with symptoms of ovarian torsion and had intervention with histology confirming final diagnosis.

CASE REPORT

A 28-year-old, Para1 previous vaginal delivery, presented to emergency department with severe lower abdominal pain and vomiting for 1 day. Pain was described as continuous, sharp and located in the lower abdomen, no other previous medical, surgical or gynaecological history of note reported. Physical examination revealed right iliac fossa tenderness with voluntary guarding and a suprapubic mass. Vaginal examination revealed a normal sized uterus and right adnexal fullness was noted on bimanual examination. CT abdomen and pelvis showed a large 12.6×9×7.3 cm multiloculated cystic lesion occupying the centre of the pelvis, likely ovarian in origin with possibility of torsion but could not rule out ovarian malignancy (Figure 1).

Transabdominal scan was done that confirmed cystic mass with solid areas, blood flow to the ovary could not be demonstrated thus unable to rule out torsion, no ascites was reported (Figure 2).

Blood serum CA 125 level was normal 23 (normal range 0-35 U/ml). On admission of the patient, laboratory analysis was within normal parameters and pregnancy test was negative.

Patient was prepared for laparoscopy and proceed in view of her ongoing pain. Intraoperatively, a solid mass was

found in the right ovary with no cystic area noted, due to the large size, decision was made to convert to laparotomy. At laparotomy, the ovary was untwisted and plicated, and a 4 cm opening was made into the ovary, necrotic content noted and removed for histology, ovarian specimen was obtained for histology and also, peritoneal washout for cytology. She had an uneventful recovery and was sent home with plan for follow up scan and review in the outpatient clinic.

Figure 1 (A and B): CT of our patient showing a 12 cm central pelvis mass.

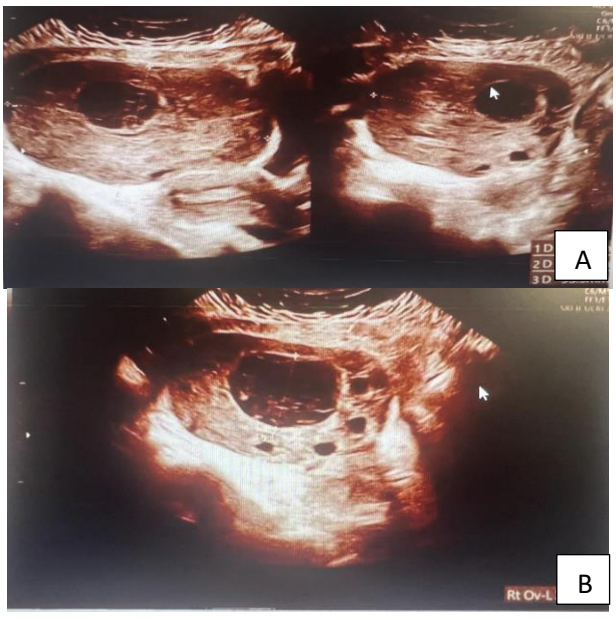

Figure 2: String of pearls sign seen in our patient: showing multiple small peripherally arranged 2-3 mm follicles

Histological examination of the specimen confirmed the diagnosis of ovarian fibroma with densely cellular lesion containing bland spindle cells. Cytology analysis for peritoneal washing was negative for malignancy. The patient is currently having regular interval follow up in the outpatient clinic.

DISCUSSION

Ovarian fibroma are benign tumors that represent about 1-4% of all ovarian tumours.[2] The average age of occurrence is in the fifth and sixth decade and the diagnosis is sometimes incidental while investigating pelvic masses.

While ovarian fibromas are often asymptomatic, they can present with complications such as ovarian torsion in 2-3% of women presenting with acute lower abdominal pain.[4] This condition is a gynaecological emergency, in which the vascular supply of ovary is compromised due to twisting of the ovary on its ligamentous support thus results in infarction and necrosis if not untwisted timely, therefore, immediate treatment is prudent. In 67% of cases, both the ovary and the tube are torted (the tubo-ovarian ligament along with infundibulopelvic ligament), however, the ovary can twist without involving the tube. Other complications include compression of adjacent structures.

Diagnosis of ovarian fibroma involves the use of imaging studies ultrasound (USS) and magnetic resonance imaging (MRI) as well as tissue histopathology for confirmation.[6,7] Transvaginal ultrasound and Doppler ultrasound imaging of the pelvis are important tools in the preoperative diagnosis with features such as solid hypoechoic masses with acoustic attenuation as well as minimal doppler flow. In our patient, the USS features were of a mass which was partly cystic and partly solid. Ovarian masses present a diagnostic challenge when image findings cannot be categorized into benign or malignant pathology.[1] However, the typical features of ovarian fibroma on CT are well-demarcated, oval-shaped, unilateral solid tumors, with parenchyma showing isodensity, hypointense or isointense signal.[9] In our patient, the CT finding was of a large 12 cm multiloculated cystic mass.

Management of ovarian fibroma depends on factors such as age, presenting symptoms and fertility desire. However, surgical resection is often recommended and in some cases like our case, fertility-sparing option would be considered while ensuring complete resection of the tumour and untwisting the ovary.

CONCLUSION

Ovarian fibromas are rare, preoperative diagnosis is very difficult, surgery with histology is used to establish the diagnosis. This case clearly demonstrates the limitation of pre-operative assessment of benign adnexal masses. One of the complications as seen in our patient is ovarian torsion and the key to salvaging ovarian function include

high clinical suspicion and prompt timely investigations with emergency surgical intervention.

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