International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Gundluri P et al. Int J Reprod Contracept Obstet Gynecol. 2024 Oct;13(10):2963-2965
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20242843

Case Report

A case of acute abdomen-ruptured ovarian cysts

Poojashree Gundluri, Ushadevi Gopalan*, Sowmiya Ravi

Department of Obstetrics and Gynaecology, Shri Sathya Sai Medical College and Research Institute, Ammapettai, Chengelpet District, Tamil Nadu, India

Received: 19 August 2024
Accepted: 11 September 2024

***Correspondence:**
Dr. Ushadevi Gopalan,
E-mail: ushag7@hotmail.com

ABSTRACT

Ovarian cyst rupture can lead to a spectrum of clinical presentations, from mild symptoms to life-threatening emergencies. This case report discusses a 26-year-old female who presented with lower abdominal distension and intermittent pain after a spontaneous incomplete abortion. Initial ultrasound revealed a large right adnexal cyst managed conservatively. During hospitalization, the patient developed acute abdominal pain with hypotension and tachycardia, prompting emergency laparotomy. Intraoperatively, a ruptured ovarian cyst with hemoperitoneum was identified and managed surgically. The case underscores the need for prompt differentiation between ovarian torsion and cyst rupture and highlights the role of surgical intervention in severe cases.

Keywords: Ovarian cyst, Ovarian cyst rupture, Acute abdomen, Hemoperitoneum

INTRODUCTION

Ovarian cysts are sacs filled with fluid that can develop either on or within the ovary. Around 20% of women experience at least one pelvic mass at some point in their lives.[1] Functional cysts, usually less than 8 cm, are the most common type of ovarian cysts and usually diminish with time. Corpus luteal cysts may present with positive pregnancy test and can rupture with significant hemoperitoneum, though rare.[2] Some of the complications of ovarian cyst are torsion, cyst rupture or malignancy. When an ovarian cyst ruptures, patients might experience a sudden, intense pelvic pain accompanied by nausea, vomiting, and signs of hypovolemia.[3] Diagnosis of rupture is made by ultrasound showing peritoneal fluid or blood. The symptoms may mislead to torsion, therefore ruling out torsion is very important.

CASE REPORT

A 26-year-old, para 1 live 1 abortion 2, came to the emergency department with complaints of lower abdominal distension for 15 days associated with mild lower abdominal pain, intermittent and diffuse in nature, stabbing type of pain, relieved with medication. She had undergone manual vacuum aspiration in an outside hospital following spontaneous incomplete abortion at 9 weeks +2 days gestational age 15 days back. Histopathological report of the same was unavailable with the patient. No antenatal investigations and scans were done.

Table 1: Nature of peritoneal fluid.

Nature of fluid	Condition
Fresh blood	Ectopic or corpus luteal rupture
Chocolate color	Rupture of endometrioma
Oily sebaceous fluid	Rupture of dermoid cyst
Pus	Rupture of tubo-ovarian abscess
Clear/serous	Simple/serous cystadenoma

On examinations, vitals were stable. Per abdomen a well-defined soft cystic freely mobile mass of size corresponding 16 weeks of gestation was palpable in the right hypochondrium extending to the midline. Lower border of the mass could not be felt. Bimanual examination, uterus felt bulky and a cystic mass corresponding to 16 weeks size felt through the right fornix separately from the uterus, independently mobile. No evidence of bleeding P/V. On admission at our hospital. Complete blood count was unremarkable. Beta-HCG on admission were 495 mIU/ml and on POD 2 were 298 mIU/ml.

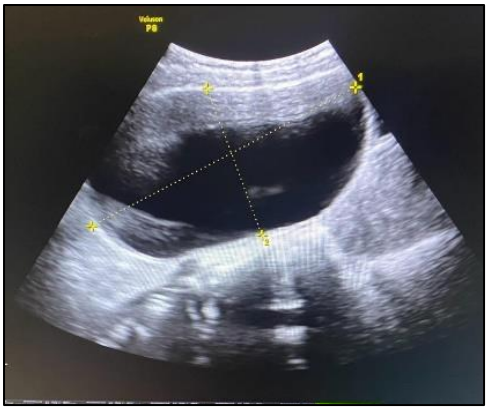

Figure 1: Ultrasound of the abdomen and pelvis showed right adnexal cyst of about 12x6.3 cm closely abutting the right ovary. Uterus showed minimal free fluid in cavity possibly suggestive of endometritis.

Patient was started on antibiotics in view of endometritis. During stay and while awaiting repeat beta HCG report, patient developed acute abdominal pain, not relieved with medication. On examination, patient was tachycardic and hypotensive. Per Abdomen, mass was not palpable, right iliac and suprapubic tenderness was present with guarding.

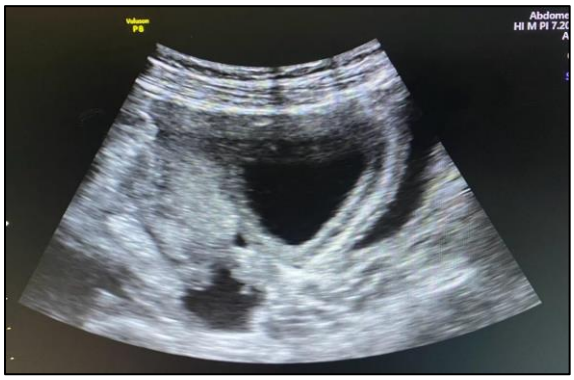

Figure 2: Repeat scan showed mild ascites and right adnexal cyst size of 5x5 cm.

Management

Patient was immediately posted for emergency laparotomy after initial resuscitation. Intraoperatively, bloodstained serous fluid of about 50 ml drained and fluid sent for cytology. Cytology report, red blood cells seen. Negative for malignancy.

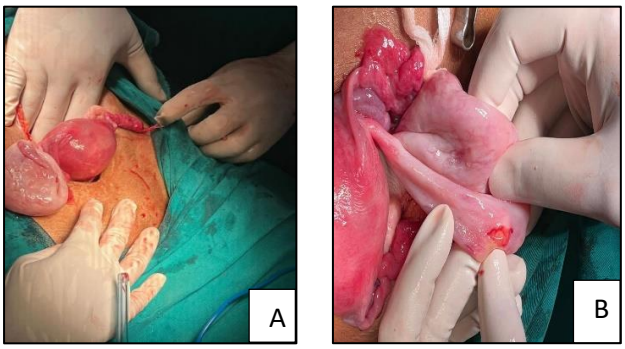

Figure 3 (A and B): A flabby cyst wall noted in the right side.

B/L ovaries and tubes were healthy and preserved. All other organs normal. Postoperatively, patient recovered well. Histopathology reports showed simple follicular cyst.

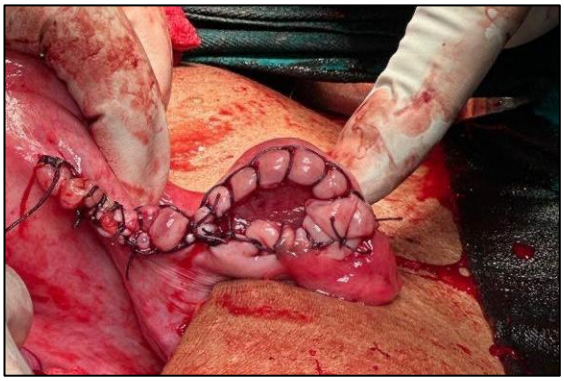

Figure 5: Cyst wall excised and marsupialization proceeded.

DISCUSSION

Patients with ovarian cysts can present with a range of symptoms, from mild to severe, often caused by rupture, bleeding, or torsion, with torsion being the most frequent complication. Spontaneous Ovarian rupture can happen rarely, mostly due to trauma.[1] The presenting symptoms of our case did not exclude torsion. Hence, care must be taken to counsel patients accordingly and exclude torsion with radiological evidence. The case also presented with palpable mass of size corresponding to 16 weeks. Oltmann et al observed a 1.8% overall malignancy rate in twisted ovaries, with a higher probability of malignancy in ovaries that were 8 cm or larger.[4] In reproductive age group, beta HCG has to be taken to rule out ectopic.[5] If the patient exhibits mild symptoms without abdominal bleeding, the condition can typically be managed with pain relievers and symptom monitoring, posing minimal risk.[6] In contrast, severe cases involving significant abdominal bleeding or haemorrhage may necessitate surgical intervention. In a

study conducted by Jee Hun et al, the focus was on evaluating the effectiveness of conservative management for ruptured ovarian cysts, the presence of low diastolic blood pressure and a significant amount of hemoperitoneum indicates the necessity for surgical intervention.[7]

CONCLUSION

Ovarian cyst rupture can range from mild to life-threatening, requiring careful assessment and timely intervention. This case highlights the importance of distinguishing between cyst rupture and ovarian torsion, as both can present similarly but have different management approaches. While conservative management is effective in mild cases, severe presentations with hemodynamic instability necessitate prompt surgical intervention. Accurate diagnosis and early treatment are critical in ensuring positive outcomes for patients with ruptured ovarian cysts.

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

REFERENCES

1. Mobeen S, Apostol R. Ovarian cyst. Treasure Island (FL): StatPearls Publishing. 2023. Available at: https://www.ncbi.nlm.nih. Accessed on 17 March 2024.
2. Fiaschetti V, Ricci A, Scarano AL, Liberto V, Citraro D, Arduini S, et al. Hemoperitoneum from corpus luteal cyst rupture: a practical approach in emergency room. Case Rep Emerg Med. 2014;2014:252657.
3. Mantecon O, George A, DeGeorge C, McCauley E, Mangal R, Stead TS, et al. A case of hemorrhagic ovarian cyst rupture necessitating surgical intervention. Cureus. 2022;14(9):29350.
4. Oltmann SC, Fischer A, Barber R, Huang R, Hicks B, Garcia N. Pediatric ovarian malignancy presenting as ovarian torsion: incidence and relevance. J Pediatr Surg. 2010;45(1):135-9.
5. Mullany K, Minneci M, Monjazeb R, Coiado O. Overview of ectopic pregnancy diagnosis, management, and innovation. Womens Health (Lond). 2023;19:17.
6. Boyd CA, Riall TS. Unexpected gynecologic findings during abdominal surgery. Curr Probl Surg. 2012;49(4):195-251.
7. Kim JH, Lee SM, Lee JH, Jo YR, Moon MH, Shin J, et al. Successful conservative management of ruptured ovarian cysts with hemoperitoneum in healthy women. PLoS ONE. 2014;9:3.

Cite this article as: Gundluri P., Gopalan U, Ravi S. A case of acute abdomen-ruptured ovarian cysts. Int J Reprod Contracept Obstet Gynecol 2024;13:2963-5.