

Adnexal mass after subtotal cesarean hysterectomy: A rare case report

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ABSTRACT

Serous cystadenoma is a frequently encountered benign epithelial ovarian tumor in women of reproductive age. Management becomes more challenging in patients with previous pelvic surgeries because of dense adhesions and altered pelvic anatomy. We describe the case of a 31-year-old woman with a prior subtotal cesarean hysterectomy performed for placenta accreta spectrum disorder, who presented with chronic left lower abdominal pain. Radiological imaging demonstrated a multiloculated left adnexal cystic lesion with septations and mural nodularity, raising suspicion of neoplastic pathology. An exploratory laparotomy with adhesiolysis and cyst excision was undertaken successfully. Histopathological examination confirmed serous cystadenoma. This case emphasizes the significance of thorough preoperative assessment, multidisciplinary planning, and careful surgical dissection in patients with complex postoperative pelvic adhesions.

Key words: Adnexal mass, Cesarean hysterectomy, Exploratory laparotomy, Pelvic adhesions, Serous cystadenoma

Serous cystadenoma represents one of the most common benign epithelial tumors of the ovary and contributes substantially to benign adnexal masses [1]. Although most lesions are simple cysts, some may appear multiloculated with septations and mural projections, thereby imitating malignant ovarian disease on imaging studies [2]. Patients with a history of major pelvic surgery, especially cesarean hysterectomy performed for placenta accreta spectrum disorder, are predisposed to severe adhesions and distorted pelvic anatomy [3]. These factors increase the technical difficulty of subsequent surgeries and elevate the risk of bladder, bowel, or ureteric injury [3]. The differential diagnosis of a complex multiloculated adnexal mass in this patient included serous cystadenoma, mucinous cystadenoma, borderline epithelial ovarian tumor, serous cystadenocarcinoma, endometrioma, peritoneal inclusion cyst, and postoperative inclusion cyst [4-6]. The presence of septations, mural nodularity, and a history of previous pelvic surgery made differentiation challenging on imaging alone. Definitive diagnosis was established only after histopathological examination [5].

CASE REPORT

A 31-year-old woman, P2L2, attended the gynecology outpatient department with intermittent pain in the left lower abdomen for 3 months. The pain was initially

mild but gradually increased in frequency and intensity over time. It was localized to the left iliac fossa without radiation and was not associated with any specific aggravating or relieving factors. The patient rated the pain as moderate in severity and reported occasional interference with daily activities. There was no associated fever, nausea, vomiting, altered bowel habits, urinary symptoms, vaginal discharge, or significant weight loss. No acute episodes suggestive of torsion or cyst rupture were reported. She had undergone a subtotal cesarean hysterectomy 1½ years earlier for Placenta Percreta. Following delivery of the fetus, attempts at placental separation resulted in torrential hemorrhage due to morbid placental adherence involving the lower uterine segment. The patient received perioperative 4 units of PRBCs and 8 Fresh frozen plasma transfusions and recovered without major postoperative complications. The ovaries were preserved as both ovaries appeared grossly normal, to prevent surgical menopause or oophorectomy syndrome symptoms in this young patient. The patient had regular menstrual cycles before her subtotal cesarean hysterectomy, with no history of menorrhagia, dysmenorrhea, or abnormal uterine bleeding.

The patient's body mass index was 28.7 kg/m². She had no known comorbidities. General physical examination was unremarkable. Abdominal examination revealed a healed midline vertical surgical scar with mild tenderness in the left lower abdomen and no guarding or rigidity.

Access this article online	
Received - 21 May 2026 Initial Review - 02 Jun 2026 Accepted - 22 Jun 2026	Quick Response code 
DOI: ***	

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Pelvic examination demonstrated a left adnexal fullness/mass with restricted mobility. Routine investigations, including complete blood count, renal function tests, liver function tests, blood glucose, coagulation profile, and urine examination, were within normal limits. Tumor markers (alpha-fetoprotein [AFP], cancer antigen [CA]-125, CA 19-9, carcinoembryonic antigen [CEA], human epididymis protein 4 [HE-4], Lactate dehydrogenase [LDH], inhibin B, and beta human chorionic gonadotropin [β -hCG]) were also within normal reference ranges.

Ultrasonography revealed a well-circumscribed multiloculated cystic lesion measuring approximately 103×96×61 mm with a calculated volume of about 320 cc. Internal septations and a small vascular soft tissue component were visualized in the pelvic cavity. The left adnexa could not be identified separately, while the right adnexa appeared normal (Fig. 1). Magnetic resonance imaging demonstrated a complex multilocular cystic mass arising from the left adnexa with enhancing septations and mural nodules, suggestive of possible cystadenocarcinoma (Fig. 2) [6-8].

Tumor marker evaluation showed values within normal limits, including AFP, CA-125, CA 19-9, CEA, HE-4, LDH, inhibin B, and β -hCG (Table 1) [9]. Considering the suspicious radiological findings and previous surgical history, the patient was planned for bilateral ureteric stenting followed by exploratory laparotomy.

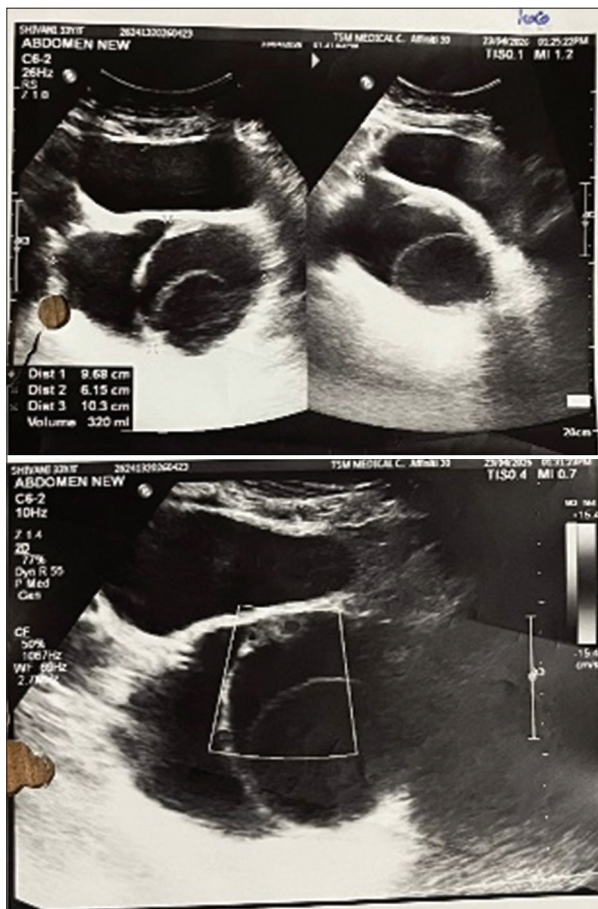


Figure 1: Ultrasonography whole abdomen showing a multiloculated complex cystic lesion with thick internal septations and an eccentric soft tissue component showing mild vascularity on color Doppler in the midline pelvic region, suggesting mild hepatomegaly

During exploratory laparotomy, dense adhesions were encountered involving the anterior abdominal wall, bowel loops, urinary bladder, omentum, and bilateral adnexal structures, likely secondary to the previous subtotal cesarean hysterectomy. The normal pelvic anatomy was markedly distorted. An approximately 8×9 cm multiloculated cystic mass arising from the left ovary was identified. The cyst was densely adherent to the urinary bladder, pelvic sidewall, and adjacent bowel loops. Bilateral ureters were identified with the aid of preoperative ureteric stenting. Careful adhesiolysis was performed to restore pelvic anatomy and prevent injury to surrounding structures. The cyst was excised intact as far as feasible, followed by bilateral salpingo-oophorectomy. An inadvertent bladder serosal defect encountered during dissection was repaired intraoperatively. No gross evidence of peritoneal deposits, ascites, omental caking, or enlarged pelvic or para-aortic lymph nodes was observed. The excised specimen was sent for histopathological examination, and peritoneal fluid/cyst fluid cytology was obtained (Fig. 3).

Histopathological examination confirmed serous cystadenoma of the left ovary. The right ovary displayed corpus luteum and benign follicular changes, while the fallopian tube and sampled omentum were unremarkable. Cytological analysis of cyst fluid showed no evidence of malignancy.

DISCUSSION

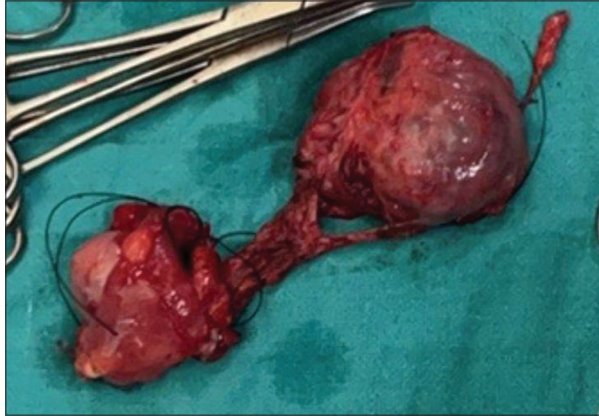
Previous studies have demonstrated that benign serous cystadenomas may occasionally mimic malignant ovarian neoplasms because of their complex imaging



Figure 2: Contrast-enhanced magnetic resonance imaging lower abdomen showing an adnexal mass with its extent. Large multilocular complex cystic pelvic mass arising from the left ovary (left adnexa). The mass has enhancing septations and a mural nodule, which are features that raise concern for an ovarian neoplasm (tumor)

Table 1: Tumor markers of the patient

Alpha-Fetoprotein	2.84 IU/mL
Cancer antigen (CA) 19-9	5.69 U/mL
Carcinoembryonic antigen	2.41 ng/mL
CA - 125	7.80 U/mL
Human epididymis protein 4	22.40 pmol/L
Inhibin B	20.74 pg/mL
Beta human chorionic gonadotropin	<0.5 mIU/mL
Lactate dehydrogenase	253 U/L

**Figure 3: Excised specimen**

characteristics [6,7]. Timmerman *et al.* reported that multilocularity, papillary projections, and vascular septations are important sonographic features that often prompt suspicion of malignancy [4,6]. Similar diagnostic dilemmas have been described in patients with prior pelvic surgery, where adhesions and altered anatomy limit accurate radiological assessment [3,10].

Unlike most reported cases occurring in women without major pelvic surgical history, our patient had undergone a subtotal cesarean hysterectomy for placenta accreta spectrum disorder, resulting in severe postoperative adhesions that significantly increased surgical complexity [3,11,12].

Benign epithelial ovarian tumors may occasionally present with radiological features resembling ovarian malignancy, thereby complicating diagnosis and treatment planning [4,8]. Multiloculated cysts with septations and mural nodules are particularly concerning because they may mimic cystadenocarcinoma on ultrasonography and magnetic resonance imaging [6,7].

Despite suspicious imaging findings, tumor markers remained within normal limits, which lowered the probability of invasive malignancy [9]. However, normal tumor markers do not completely exclude ovarian cancer, and histopathological examination remains the gold standard for diagnosis [5,9].

Complete surgical excision remains the treatment of choice for serous cystadenoma and is generally associated with excellent prognosis and low recurrence rates [5,10].

CONCLUSION

Adnexal masses developing after subtotal cesarean hysterectomy may present considerable diagnostic and surgical challenges because of dense pelvic adhesions and altered anatomy. Complex ovarian cysts with suspicious imaging features should be evaluated comprehensively using tumor markers and advanced imaging techniques. Meticulous surgical planning, intraoperative caution, and histopathological confirmation are essential for successful management and favorable patient outcomes.

REFERENCES

1. Berek JS, Hacker NF. Berek and Hacker's Gynecologic Oncology. 7th ed. Philadelphia, PA: Wolters Kluwer; 2021.
2. Kurman RJ, Carcangiu ML, Herrington CS, Young RH. WHO Classification of Tumours of Female Reproductive Organs. 4th ed. Lyon: IARC; 2014.
3. Hoffman BL, Schorge JO, Bradshaw KD, Halvorson LM, Schaffer JJ, Corton MM. Williams Gynecology. 4th ed. New York: McGraw-Hill Education; 2020.
4. Timmerman D, Valentin L, Bourne TH, Collins WP, Verrelst H, Vergote I. Terms, definitions and measurements to describe the sonographic features of adnexal tumors. Ultrasound Obstet Gynecol 2000;16:500-5.
5. Rock JA, Jones HW. Te Linde's Operative Gynecology. 12th ed. Philadelphia, PA: Wolters Kluwer; 2020.
6. Timmerman D, Testa AC, Bourne T, Ameye L, Jurkovic D, Van Holsbeke C, *et al.* Simple ultrasound-based rules for the diagnosis of ovarian cancer. Ultrasound Obstet Gynecol 2008;31:681-90.
7. Valentin L. Pattern recognition of pelvic masses by ultrasound imaging. Best Pract Res Clin Obstet Gynaecol 2004;18:71-89.
8. Kaijser J, Bourne T, Valentin L. Improving strategies for diagnosing ovarian cancer. Nat Rev Clin Oncol 2013;10:143-54.
9. American College of Obstetricians and Gynecologists' Committee on Practice Bulletins-Gynecology. Practice bulletin No. 174: Evaluation and management of adnexal masses. Obstet Gynecol 2016;128:e210-26.
10. Sayasneh A, Ekechi C, Ferrara L, Kaijser J, Stalder C, Sur S, *et al.* The characteristic ultrasound features of specific types of ovarian pathology (review). Int J Oncol 2015;46:445-58.
11. Jauniaux E, Bhide A. Prenatal ultrasound diagnosis and outcome of placenta accreta spectrum disorders. Ultrasound Obstet Gynecol 2017;49:761-70.
12. Silver RM. Abnormal placentation: Placenta previa, vasa previa, and placenta accreta. Obstet Gynecol 2015;126:654-68.

Funding: Nil; Conflicts of interest: Nil.

How to cite this article: Chandanan A, Yadav C, Saxena A, Parmar J. Adnexal mass after subtotal caesarean hysterectomy: A rare case report. Indian J Case Reports. 2026; June 28 [Epub ahead of print].