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CASE REPORT

Ovarian Serous Cystadenofibroma: A Rare Case Report

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ABSTRACT

Background: Serous cystadenofibroma is an uncommon benign ovarian tumour that may closely resemble a simple or even suspicious adnexal lesion on imaging because of its prominent fibrous component. Recognising this entity is important because it may influence surgical planning and counselling, especially in young women with a family history of ovarian cancer.

Case information: A 29-year-old P2L2A2 woman presented with lower abdominal pain, irregular menstrual cycles for 3 months, and dysmenorrhoea. Pelvic imaging suggested a right simple ovarian cyst (9.3 x 6.3 x 7.5 cm). after complete evaluation laparoscopic cystectomy was planned. Intraoperatively, a thick-walled mass adjacent to right ovary measuring 8 × 6 cm was identified, with suspected extra ovarian tissue.right ovary was absolutetly healthy. Mass was excised. Histopathology demonstrated serous cystadenofibroma, with a cyst wall composed of fibrous stroma. Recovery was uneventful.

Conclusion: This case illustrates how serous cystadenofibroma can present deceptively as a simple ovarian cyst on imaging yet reveal a more complex appearance at surgery. Histopathological examination remains essential for definitive diagnosis.

KEYWORDS

• Serous cystadenoma • Adenofibroma • Epithelial tumor • Stromal tumor

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INTRODUCTION

Serous cystadenofibroma is an uncommon benign ovarian epithelial-stromal tumour and accounts for 1.7% of benign ovarian neoplasms and occurs in women aged 15-65 years.[1,2] It may present with variable radiologic appearances because of its prominent fibrous component. On imaging, it may resemble a simple cyst or a more complex adnexal lesion, and definitive diagnosis is often established only after histopathological examination.[3]

In the evaluation of adnexal masses, correlation of clinical features, imaging findings, operative assessment, and tissue diagnosis remains essential, particularly in reproductive-age women in whom fertility preservation is an important consideration. This case describes a 29-year-old woman with lower abdominal pain, irregular menstrual cycles, and dysmenorrhoea, in whom a right ovarian cyst that appeared simple on imaging was ultimately diagnosed as serous cystadenofibroma in histopathologival examination. Her family history of ovarian carcinoma added an important counselling dimension to the clinical assessment.

CASE REPORT

A 29-year-old woman, P2L2A2 presented with pain in the lower abdomen since 6 months. She also reported irregular menstrual cycles for the preceding 3 months and dysmenorrhoea. She denied significant weight loss, anorexia or abdominal distension. Her family history was notable for her mother having died from ovarian carcinoma.

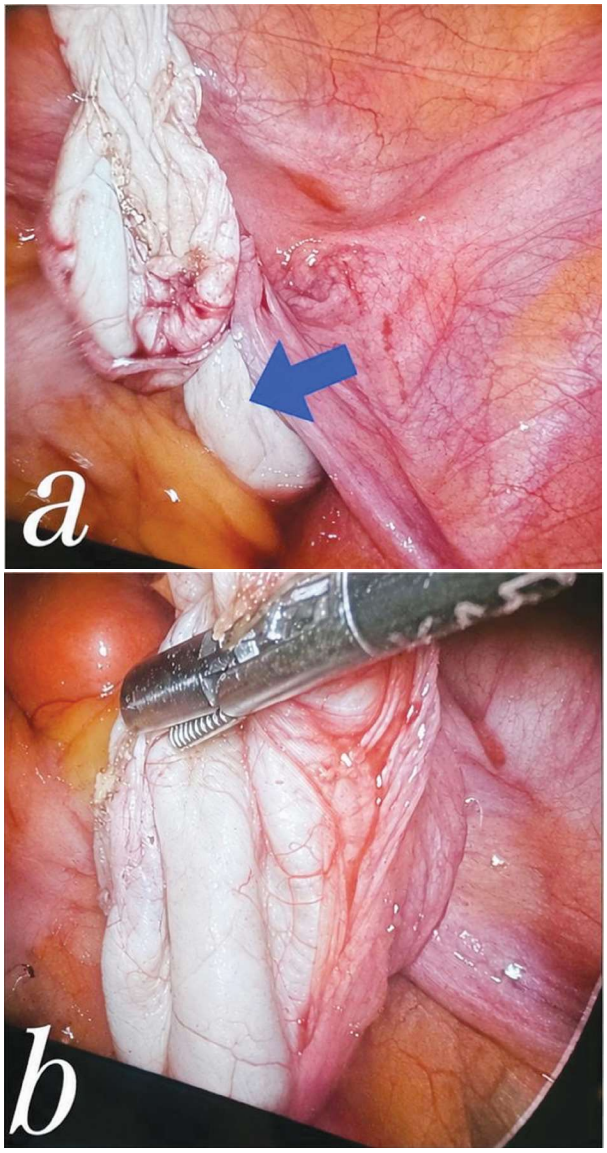
No other relevant medical history, prior ovarian surgery, or systemic illness was reported

General examination and vitals parameters were normal. Abdominal examination was unremarkable. On per speculum examination, the cervix and vagina appeared healthy. On bimanual examination, the uterus was normal in size, with a cystic, mobile, non tender adnexal mass palpable anterior to the uterus. Routine pre operative blood examinations were within normal limits.

Diagnostic assessment

The initial imaging impression was a right simple ovarian cyst (9.3 x 6.3 x 7.5 cm) on ultrasound which was followed by a CECT showing well defined, unilocular cystic lesion measuring 7.8 x 6.7 x 8.0 cm arising from right ovary and the lesion showed thin walls with no internal septations, mural nodules, wall thickening, or calcifications. Serum tumor markers were evaluated. Serum CA 125 was 11U/mL, CA 19-9 was 0.6 U/mL, CEA was 1.18ng/mL, AFP was 2.73 Ng/mL, and Beta HCG was 0.100mIU/mL. Pap smear was NILM.

However, at surgery the lesion appeared more complex, with a thick wall and looked like extra ovarian tissue, raising intraoperative concern that the lesion was not a typical simple cyst.(Figure 1: A,B,C,D) Right ovary was absolutely healthy ,mass was excised completely.



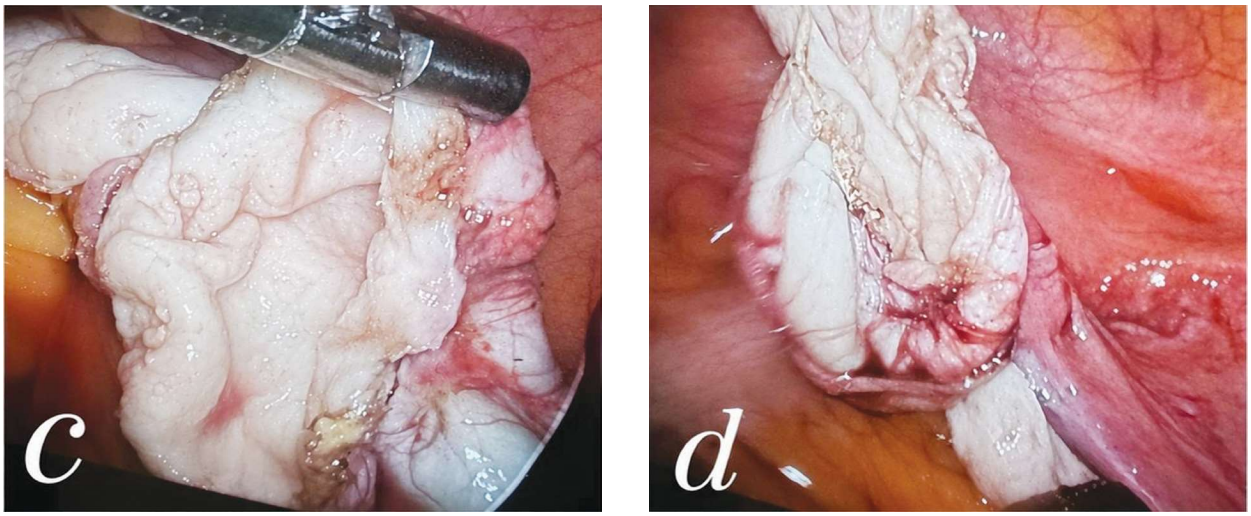


Figure 1: A) Showing ovarian serous cystadenofibroma adjacent to the normal ovary(blue arrow); **B)** Showing careful laparoscopic dissection from the ovary using traction and countertraction; **C)** Drainage of the cyst to facilitate laparoscopic excision; **D)** serous cystadenofibroma following drainage during the excision procedure with preservation of ovary.

Histopathological examination (Figure 2: A,B) showed fibrous stroma consistent with serous cystadenofibroma. This tissue diagnosis was decisive since imaging alone may not reliably distinguish this benign tumour from more concerning ovarian lesions. Postoperative period was uneventful.

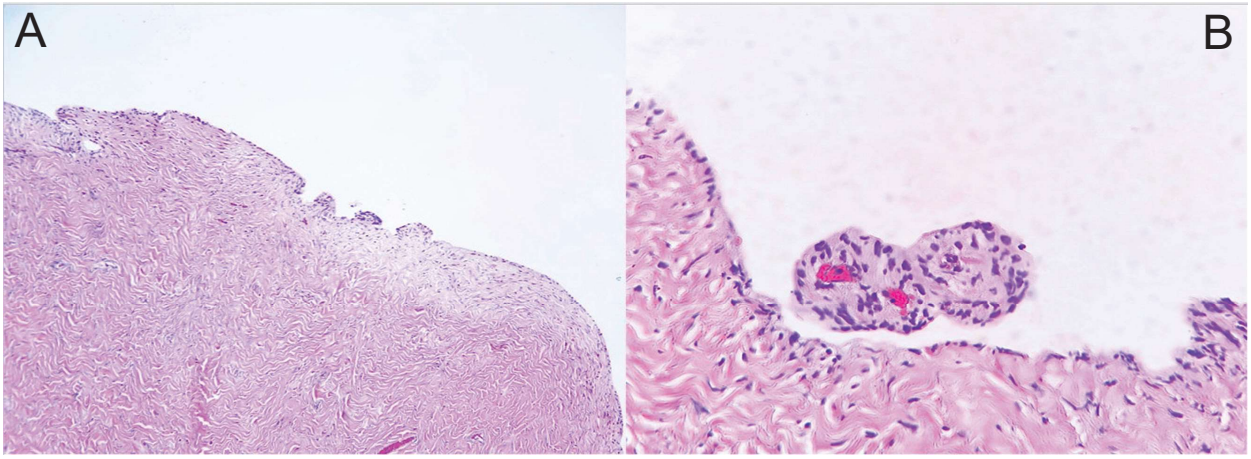


Figure 2: legend **A)** Cyst wall formed by fibrous stroma and lined by cuboidal epithelium (H&E, 10x); **B)** Cyst surface showing papillary projection (H&E, 40x)

The intraoperative appearance did not lead to radical surgery, which was appropriate given the patient's age and the eventual benign pathology. This approach aligns with the principle that histology, rather than gross appearance alone, should guide definitive diagnosis whenever safely possible.

DISCUSSION

Serous cystadenofibroma is a benign ovarian epithelial-stromal tumour that may pose a diagnostic challenge because its fibrous component can alter the sonographic and gross appearance of the lesion. Although benign, it can appear as a simple cyst, a multilocular cyst, or a complex adnexal mass depending on the relative proportion of epithelial and stromal elements, and this variability may lead to confusion with more concerning ovarian pathology. Contemporary literature continues to emphasize that cystadenofibromas are among the benign ovarian tumours that may mimic malignancy on imaging, particularly

when solid-appearing components or wall thickening are present.[4,5]

In this patient, preoperative imaging suggested a simple right ovarian cyst, but intraoperative assessment revealed a thick-walled lesion measuring 8x8x6cm. This discrepancy illustrates the limits of imaging in characterizing adnexal masses when fibrous tissue is present. The eventual histopathological diagnosis of serous cystadenofibroma confirmed that the lesion was benign, with the fibrous stromal component explaining the firm and thickened cyst wall. Histology remains the definitive method of diagnosis in such cases, because imaging alone cannot always reliably distinguish benign fibrous tumours from borderline or malignant lesions.

Kalpana *et al.* and Barbu *et al.* reported cases with complex ovarian cyst and histopathological examination after cystectomy confirming serous cystadenofibroma.[6,7]

Diab *et al.* reported a case of ovarian serous cystadenofibroma that was pre operatively suspected to be an endometrioma because of its complex imaging appearance. In contrast, our patient had a simple right ovarian cyst on imaging with the diagnosis of serous cystadenofibroma established only after histopathological examination.[8]

The patient's family history of ovarian carcinoma added an important counselling dimension to management. A first-degree relative with ovarian cancer often heightens anxiety and may lower the threshold for operative intervention, even when imaging seems reassuring. In reproductive-age women, however, the treatment plan should also consider fertility preservation and avoidance of unnecessary radical surgery when there is no clear evidence of invasive disease. In this case, laparoscopic mass excision was an appropriate conservative option because it allowed symptom relief, tissue diagnosis, and ovarian preservation.

The post-operative course was uneventful, and this favourable recovery is consistent with the benign behaviour of serous cystadenofibroma after complete excision. The principal value of reporting this case lies not in rarity alone, but in the clinical message that a seemingly straightforward ovarian cyst may prove different during intraoperative period and in histopathological examination from what imaging suggests.

CONCLUSION

Serous cystadenofibroma should remain an important differential diagnosis for ovarian cystic lesions, particularly when imaging findings and intra operative appearance appear disproportionate to the patient's clinical presentation. This case emphasizes the importance of correlating clinical findings, intraoperative assessment, and histopathology, especially in young women where ovarian preservation is desirable.

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