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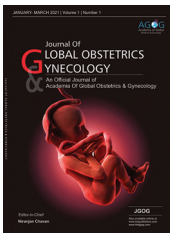
Case Report



A Rare Case Report – Ovarian Serous Cystadenofibroma

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ABSTRACT

Ovarian serous cystadenofibroma is a rare benign epithelial-stromal tumor, typically presenting as a complex adnexal mass in women aged 15–65. Despite its benign nature, it often mimics malignant ovarian tumors on imaging due to its mixed cystic-solid architecture. We report a case of a 55-year-old multiparous female who presented with lower abdominal pain and fullness. Clinical and radiological evaluation revealed a large, complex left adnexal mass. Imaging features on magnetic resonance imaging (MRI), including low T2-weighted signal intensity, suggested a benign fibrous lesion. The patient underwent total abdominal hysterectomy with bilateral salpingectomy and left oophorectomy. Histopathological examination confirmed the diagnosis of serous cystadenofibroma with no atypia or malignant transformation. The post-operative course was uneventful, and follow-up showed no recurrence. Although rare, ovarian serous cystadenofibroma should be considered in the differential diagnosis of complex adnexal masses. MRI may aid in distinguishing it from malignancy, but definitive diagnosis requires histopathology. Surgical excision is curative with an excellent prognosis and minimal risk of recurrence.

Key words: Benign adnexal mass, Histopathology, Magnetic resonance imaging, Ovarian tumor, Serous cystadenofibroma

INTRODUCTION

Ovarian tumors can be classified into three categories: benign, borderline or low malignant potential (LMP), and malignant. Benign tumors are non-cancerous and do not metastasize. Borderline or LMP tumors are generally non-cancerous but may occasionally behave like malignant ones. Malignant tumors are cancerous and have the ability to spread to other parts of the body.[1]

Ovarian cystadenofibroma is an uncommon benign tumor typically found in women between the ages of 15 and 65. The exact cause of serous cystadenofibroma remains unknown. It is a slow-growing tumor arising from the epithelial tissue and often appears as a mixture of cystic and solid areas within the ovary.[2] In most cases, it occurs as a single mass in one ovary, although in rare instances, multiple masses can develop in the same ovary, or both ovaries may be affected. These tumors are classified as "serous" based on their microscopic features.[3]

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Patients may present with symptoms such as abdominal pain, abnormal vaginal bleeding, or a palpable abdominal mass. However, many cases remain asymptomatic and are discovered incidentally during imaging studies, such as an abdominal ultrasound, conducted for unrelated reasons.[4] On imaging, particularly magnetic resonance imaging (MRI), these tumors may resemble malignant ovarian masses. Nonetheless, the fibrous portion of the tumor often produces distinct low signal intensity on T2-weighted MRI images, which can aid in distinguishing it from malignancy.[5]

Although complications are uncommon, they may include rupture of the cystic part of the tumor into the abdominal cavity or torsion of the ovary. The preferred treatment is complete surgical excision of the tumor.[2,6] With timely and appropriate management, the prognosis is typically excellent.[4,7]

CASE REPORT

A 55-year-old multiparous female presented to the Department of Obstetrics and Gynaecology, Lokmanya Tilak Municipal Medical College and General Hospital, Sion, Mumbai, with complaints of dull, intermittent lower abdominal pain for the past 1 month, accompanied by a sensation of fullness in the lower abdomen for 1 week. There were no associated gastrointestinal disturbances, weight loss, or constitutional symptoms. Her menstrual history

was unremarkable, and she had no significant medical or surgical comorbidities.

On general examination, she was afebrile and hemodynamically stable. Her body mass index was 19 kg/m^2, indicating normal nutritional status. On abdominal examination, a firm, mobile, and non-tender abdominopelvic mass was palpated in the midline, approximating a 16–18-week gestational size. Bimanual pelvic examination confirmed a corresponding right adnexal mass.

Transabdominal ultrasonography revealed a well-defined, complex cystic lesion measuring 12 × 15 cm in the right adnexal region, with internal septations and no significant solid components. The left adnexa and uterus were unremarkable. MRI findings were suggestive of a benign ovarian neoplasm, likely serous cystadenofibroma, owing to its low T2-weighted signal intensity indicative of a fibrous stromal component. Serum CA-125 level was 5 mIU/mL, within normal limits.

Routine pre-operative investigations, including hematological and biochemical profiles, were within reference ranges. A provisional diagnosis of a right-sided benign complex ovarian cyst was made. The patient underwent total abdominal hysterectomy with bilateral salpingectomy and right oophorectomy through exploratory laparotomy.

Intraoperatively, the uterus appeared grossly normal. A large right ovarian cystic mass measuring 12 × 15 cm with mixed solid-cystic areas was noted [Figure 1]. Simple cyst of 3 × 3 cm was noted in the left ovary. There was no ascites, peritoneal deposits, or lymphadenopathy. The surgery was completed without complications.

Histopathological examination of the right ovarian mass confirmed the diagnosis of serous cystadenofibroma, characterized by cystic spaces lined with serous-type epithelium and prominent fibrous stroma, without any atypia or malignant transformation.[3,6]

The patient had an uneventful post-operative recovery and was discharged on post-operative day 5. On follow-up, she remained asymptomatic, with no evidence of recurrence on clinical or radiologic evaluation.

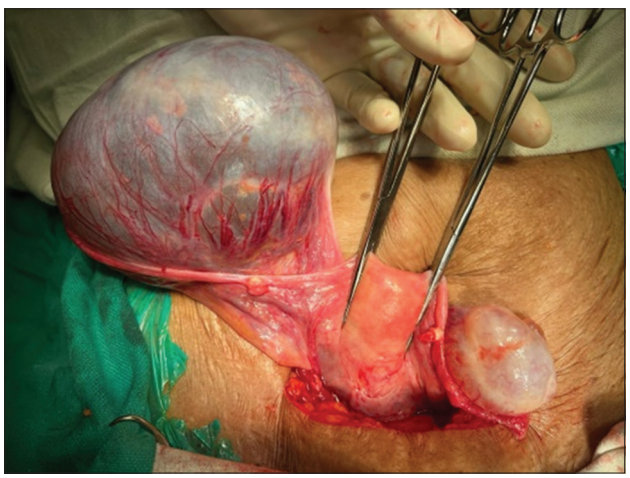

Figure 1: Ovarian serous cystadenofibroma

DISCUSSION

Serous cystadenofibroma is a rare benign ovarian tumor arising from the surface epithelium and fibrous stromal tissue of the ovary. It is characterized by slow growth and an extremely low risk of malignant transformation.[2,4] The physical characteristics of the tumor – whether cystic, solid, or complex – depend on the balance between its epithelial and stromal components, as well as the secretory activity of the epithelium.[3,5]

This tumor type accounts for approximately 1.7% of all benign ovarian neoplasms.[2] The serous subtype is most frequently encountered, although other variants such as mucinous, endometrioid, and clear cell cystadenofibromas are also recognized.[4,6]

Typically, serous cystadenofibromas present in women during the fourth or fifth decade of life. In some cases, earlier presentation has been associated with prenatal exposure to diethylstilbestrol, suggesting a potential hormonal or developmental factor in pathogenesis.[7]

The clinical presentation can be varied and non-specific. Common symptoms include lower abdominal pain, a sensation of pelvic fullness, increased abdominal girth, urinary urgency, rectal pressure, and abnormal vaginal bleeding. Rarely, signs of feminization may occur, possibly due to estrogen secretion by the tumor, although not all studies support a hormonal effect or find evidence of significant endometrial changes.[3,6]

Despite being benign, these tumors can mimic malignant neoplasms on imaging due to their size, multiloculated architecture, and broad-based papillary projections. MRI can aid in pre-operative assessment, especially due to the low signal intensity of the fibrous components on T2-weighted sequences.[5] However, definitive diagnosis requires histopathological examination.[3,6]

Studies have shown favorable outcomes in patients with serous cystadenofibroma, regardless of whether they underwent conservative surgery (such as cystectomy or oophorectomy) or more extensive procedures such as total abdominal hysterectomy with bilateral salpingo-oophorectomy.[6,7] Laparoscopic surgery has also been reported as an effective diagnostic and therapeutic approach. In selected cases, large tumors have been successfully decompressed and removed intact without intra-abdominal spillage, demonstrating the feasibility of minimally invasive management.[5,7]

CONCLUSION

Serous cystadenofibroma is a rare benign ovarian tumor that should be included in the differential diagnosis of complex adnexal masses. Although imaging features may raise suspicion for malignancy, these tumors are non-cancerous and carry an excellent prognosis when completely excised. Histopathological confirmation is crucial for accurate diagnosis. With appropriate surgical management, the risk of recurrence is extremely low, and long-term outcomes are highly favorable.

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