

## Ovarian Serous Cystadenofibroma – A Rare Case Report

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### ABSTRACT

*Ovarian cystadenofibroma is a relatively rare benign ovarian tumour, generally affecting women in their fifth decade, containing epithelial as well as fibrous stromal components. As a group, they represent 1.7% of all benign ovarian tumours.*

*A 56-year-old post-menopausal woman presented with complaints of pain abdomen since one week. Her abdominal examination revealed a mass of 18-20 weeks size, firm in consistency. Per-vaginal examination revealed uterus not felt separately, 20 weeks size mass, firm in consistency. Ultrasound examination revealed a bilateral complex adnexal cyst, with few septations. MRI scanning showed features of bilateral benign ovarian tumour most likely serous cystadenoma. A provisional diagnosis of bilateral complex ovarian cyst was made and she was planned for laparotomy. She underwent Total Abdominal Hysterectomy and Bilateral Salpingo-oophorectomy. Intra-operatively she was found to have atrophic uterus with bilateral ovarian complex cyst. The specimen was sent for histopathological examination and it revealed right side haemorrhagic cyst and left side cyst showing features of serous cystadenofibroma.*

*The appearance of cystadenofibroma on imaging is often complex; cystic to solid mass may be visualized and it often resembles a malignant tumour. Owing to the fibrous component of this tumour, MRI scanning shows low-signal intensity on T2W images and this may help a radiologist to make a pre-operative diagnosis of this tumour and thus perhaps avoid aggressive surgical management.*

**Keywords:** Laparotomy, Magnetic resonance imaging, Ovarian cystadenofibroma.

### INTRODUCTION

Tumours of the ovaries can be benign, borderline or low malignant potential (LMP), or malignant tumours. Benign tumours are not cancerous and do not spread or metastasize. Borderline or low malignant potential (LMP) tumours are usually benign, but some of them can behave like cancers. Malignant tumours are cancers that spread and metastasize.

Ovarian cystadenofibroma is a relatively rare benign tumour that is seen in women aged 15–65 years<sup>1</sup>. The causal factors for serous cystadenofibroma of ovary are unknown. Benign serous cystadenofibroma of ovary is a slow-growing epithelial tumour. It usually occurs as a combination of cystic and solid mass within the ovary. In majority of the cases, the tumour is present as a single mass within the ovary; though rarely, the tumour can occur as multiple masses within a single ovary, or it may affect both the ovaries as well. These tumours are considered to be serous type of tumours based on their characteristic appearance under a microscope.

Serous cystadenofibroma of ovary usually presents with sign and symptoms, such as abdominal pain, vaginal bleeding and mass in the abdomen. Many such tumours show no signs and symptoms and are usually detected incidentally during an abdominal ultrasound, performed for other health reasons.

The routine imaging features of this tumour may mimic a malignant neoplasm, but the presence of

the fibrous component often gives a characteristic MRI appearance of low-signal intensity on T2W images that may help differentiate it from malignant ovarian tumours<sup>2-5</sup>.

The complications due to these ovarian tumours are rare, but may include rupture of the cystic portion of the tumour within the abdomen, or torsion of the affected ovary. The treatment for serous cystadenofibroma of ovary is complete surgical removal of the tumour. The prognosis is generally excellent with prompt and appropriate treatment.

### CASE REPORT

A 56-year-old multiparous woman presented to the Gynaecology OPD at JSS Medical College and Hospital, Mysore with complaints of pain abdomen since one month. She also complained of fullness in the lower abdomen since one week. There was no history of loss of appetite or weight. She was a known case of hypertension since the past 10 years and was on treatment.

On examination, the patient was afebrile. She was obese (BMI was 29.2kg/m<sup>2</sup>). Her vital signs were stable. Her abdominal examination revealed a mass of 18-20 weeks size, in the midline and was firm in consistency. Per vaginal examination revealed the same mass.

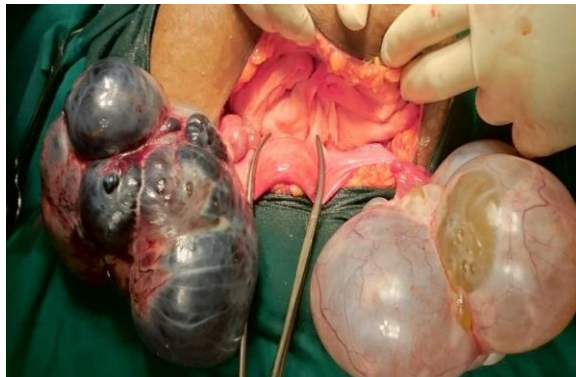
Bilateral complex adnexal cysts were noted on ultrasound examination – 18x10cms cystic mass with few thick septations was seen in the left adnexa

and another 12x7cms cystic mass was noted in the right adnexa. MRI features were suggestive of bilateral benign ovarian tumour, most probable diagnosis being serous cystadenoma. Serum CA-125 titre was 14.6mIU/L.

Routine pre-operative blood investigations were within normal limits. A provisional diagnosis of bilateral complex ovarian cyst was made and she was planned for exploratory laparotomy proceeded to total abdominal hysterectomy with bilateral salpingo oophorectomy. Intra-operatively she was found to have an atrophic uterus with bilateral complex ovarian cysts. On the right side, a haemorrhagic cyst of 10x10cm was noted and on the left side the cyst measured 12x10cms. No ascites or free fluid was present.

The specimen was sent for histo-pathological examination and the findings were consistent with haemorrhagic cyst on the right side whereas the left side cyst revealed features of *serous cystadenofibroma*. Her post-operative period was uneventful and she was discharged on day-6.

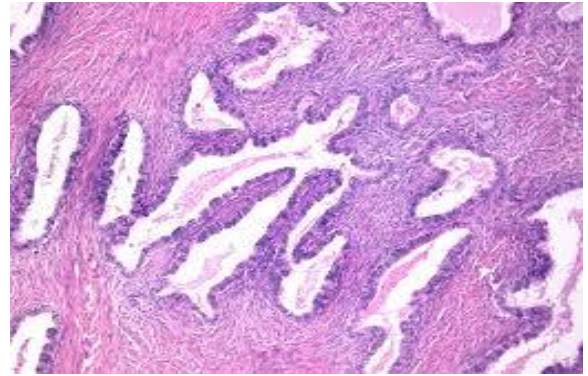
On her follow-up visit, she was doing well with no recurrence of mass or pain abdomen.



**Fig. 1: Intra-operative specimen of bilateral ovarian cysts and uterus**



**Fig. 2: Post-operative specimen of left ovarian cyst – Ovarian Cystadenofibroma (HPE diagnosis)**



**Fig. 3: Histopathological Examination, H&E stain: Glands and cysts are scattered in a fibroblastic stroma; the stromal component appears grossly as firm white or greyish areas**

## DISCUSSION

Adenofibromas are relatively rare benign tumours with extremely rare malignant potential, arising from the germinal lining and ovarian stroma. The relative amounts of the epithelial and stromal constituents and the secretory activity of the epithelial component determines the solid, semisolid or liquid state of the tumour. The majority of the reported adenofibromas are of serous type. However, endometrioid; clear cell and mucinous types also exist<sup>6</sup>.

Review of the current literature suggests that cystadenofibromas generally present in the fourth and fifth decades of life. However, they appear to present earlier in a subset of women exposed to ante-natal diethylstilbestrol<sup>7</sup>.

The presenting symptoms of the tumour include abdominal pain, increased abdominal girth, dysuria, rectal urgency, vaginal bleeding and feminization<sup>8</sup>. One school of thought suggests that the feminization and vaginal bleeding symptoms are due to excessive estrogen secretion by the tumour causing abnormal endometrial growth<sup>9,10</sup>. However, other authors failed to prove excessive endometrial growth<sup>11</sup>.

34 patients with benign serous cystadenofibromas were studied and favorable outcomes were found in all the patients irrespective to whether they underwent conservative cystectomy, oophorectomy or total abdominal hysterectomy and bilateral salpingo-oophorectomy<sup>12</sup>.

The diagnosis of cystadenofibroma is a difficult one, as they macroscopically and ultrasonographically appear malignant. They may grow up to 20 cms in diameter, encapsulated and multiloculated with short broad papillary projections. Laparoscopy may also be used in the diagnosis and even treatment of this condition as demonstrated by Sills et al.; they described how the cyst was decompressed and removed intact without any spill via a 5 mm laparoscopic port site<sup>13</sup>.

## CONCLUSION

The prognosis of benign serous cystadenofibroma of ovary is excellent with suitable treatment. They have a very low recurrence risk on complete removal through surgery.

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