

A Pelvic Cauliflower-like Growth: A Misleading Diagnosis

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ABSTRACT

Aim: To present a rare case of cauliflower-like pelvic tumor in a 29-year-old lady with an intraoperative diagnostic dilemma.

Background: Ovarian adenofibromas are rare benign neoplasms accounting for 1.7% of all benign ovarian tumors. A cauliflower-like growth is usually suggestive of malignancy; however, benign tumors like leiomyoma, granulomas, and polypoidal endometriosis can have similar morphology, especially in young women.

Case description: A 29-year-old nulligravida with abnormal uterine bleeding and abdominal pain for 2 months presented to our outpatient department. Ultrasonography demonstrated a well-defined left adnexal solid cystic lesion with the minimal color flow. Laparoscopy was done and intraoperatively there was solid, cauliflower-like growth of 3 cm in the pouch of Douglas (POD) between the left ovary and posterior uterine surface that mimicked a malignancy. The left ovary had a simple cyst of 4 cm. Complete excision of the cauliflower-like pelvic mass, left ovarian cystectomy and staging peritoneal biopsies were done. On histopathology, the cauliflower lesion was diagnosed as ovarian serous adenofibroma.

Conclusion: Ovarian serous adenofibromas are benign lesions that look deceptively malignant but have a good prognosis. Intraoperative frozen section is ideal for the appropriate management in such situations of clinical dilemma. If a frozen section facility is unavailable, performing an excision biopsy to confirm or refute a malignancy before proceeding with radical surgery, particularly in young women, is advised.

Clinical significance: Ovarian serous adenofibromas are uncommon benign neoplasms that morphologically mimic malignancy and can cause a diagnostic dilemma but have a good prognosis after excision.

Keywords: Adnexal mass, Complex ovarian cyst, Laparoscopy, Ovarian adenofibroma, Ovarian carcinoma.

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BACKGROUND

Ovarian adenofibromas are uncommon benign neoplasms and relatively rare variants of epithelial tumors of the ovary, containing epithelial and fibrous stromal components. They account for 1.7% of all benign ovarian tumors and occur in women aged 15–65 years.¹ The routine clinical and imaging features of this tumor may mimic a malignant neoplasm thus posing a difficult management decision for the clinicians. We report a case of one such suspicious pelvic mass which was diagnosed as a benign ovarian adenofibroma on histopathology.

CASE DESCRIPTION

A 29-year-old nulligravida presented with complaints of severe dysmenorrhea, lower abdominal pain and backache for 2 months. Her menstrual cycles were irregular with heavy menstrual bleeding. Her past surgical history was unremarkable and there was no family history of malignancy. Clinical examination was unremarkable.

Pelvic ultrasound demonstrated a complex uniloculated cystic mass of 8 × 6 cm with internal echoes and an echogenic focus of 2.5 × 2 cm in the left adnexa while the left ovary could not be separately identified, suggesting a possible ovarian origin. There was no posterior acoustic shadowing or increased vascularity. There was no free or loculated fluid in the pelvis. The right ovary appeared normal. Her full blood counts and serum biochemistry were within the normal ranges, CA-125 was 191.4 U/mL, CEA was 2.16 ng/mL and CA 19.9 was 82.93 U/mL. At this stage, our differential diagnoses included ovarian neoplasm, ovarian endometrioma, and dermoid cyst. Further evaluation with MRI pelvis showed a left adnexal thin-walled cyst of 7.8 cm without internal septations or solid areas, with a rim of normal ovarian tissue in the periphery. A 3 cm heterogeneous hypointense lobulated solid lesion with multiple

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nodules was noted in the left adnexa. Free fluid was noted in the POD. As the risk of malignancy index (RMI) was 382, left ovarian malignancy was suspected.

The patient was posted for exploratory and staging laparoscopy under general anesthesia. Intraoperatively a 4 cm simple cyst with an adjacent solid nodular, irregular erythematous cauliflower-like growth of 3 cm was noted near the left adnexa but separate from the left ovary and adjacent to the left posterior uterine surface (Fig. 1). No obvious lesion was found on the uterus, contralateral ovary, stomach, colon, liver surface, and intestines and there was no free fluid. Left ovarian cystectomy with excision of the adjacent solid mass was done. Endometrial biopsy and peritoneal biopsies from left and right paracolic gutters were taken. There were no intraoperative or postoperative surgical complications.

Histopathological examination of the left adnexal cauliflower-like growth mass revealed benign serous adenofibroma (Fig. 2). Immunohistochemistry (IHC) showed spindle cells strongly positive for h-Caldesmon, SMA, and focally positive for desmin. MIB 1

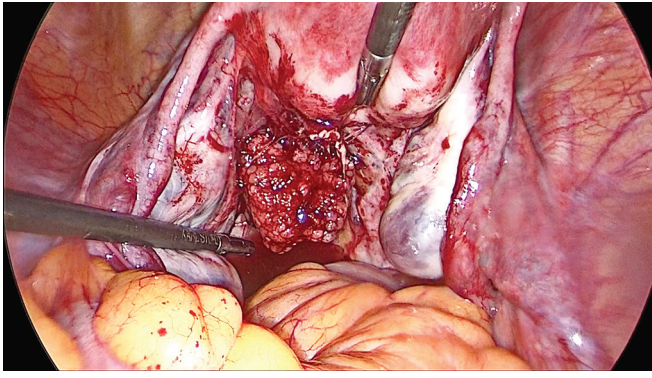


Fig. 1: Intraoperative image showing cauliflower-like pelvic growth

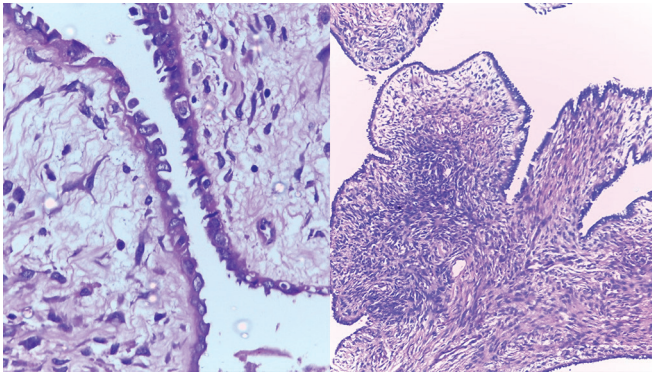


Fig. 2: Histopathology of adenofibroma showing papillae with abundant fibrous stroma and surface ciliated cuboidal epithelium

proliferative index was 1. Biopsies from the right and left paracolic gutters were normal and the left ovarian cyst was a functional cyst. The patient made an uneventful postoperative recovery and the ultrasound at 1-year follow-up was normal.

DISCUSSION

Adenofibromas are benign compound tumors composed of intermingling neoplastic epithelial cells and fibroblasts of varying proportions. The first case has been reported by Hughesdon in the *Proceedings of the Royal Society of Medicine*. They arise from the surface or cortex of the ovary, are often metachronous in origin, and are occasionally found in extraovarian sites.² The solid, semisolid, or cystic appearance of the tumor depends upon the relative amount of the epithelial and stromal components and the secretory activity of the epithelial component. These tumors can be asymptomatic or may present with vague pain, heaviness, and sometimes as a lump in the lower abdomen. Earlier it was reported commonly in women who had DES exposure *in utero*.³ Rarely these tumors may present with vaginal bleeding and feminization if the tumor is estrogen secreting as a result of the excessive stromal activity. Because of their solid component or irregular thick septae, these masses are often diagnosed as malignant on routine preoperative imaging. MRI is the investigation of choice

for preoperative characterization of complex ovarian masses, very low signal intensity on T2-weighted MR images is the key feature suggesting a fibrous component as described in other studies.³ The differential diagnoses of ovarian adenofibroma on MRI should include ovarian masses with fibrous components like fibroma, fibrothecoma, and Brenner's tumor. Grossly these tumors are known to mimic malignancies due to their irregular appearance, multiple lesions, and in some cases the presence of ascites. Radical surgery for the presumptive diagnosis of an ovarian malignancy on gross appearance and radiology, especially in women of the reproductive age-group, could prove to be devastating considering their benign nature. The treatment of choice for a serous adenofibroma is the complete surgical removal of the tumor alone. Being benign, these tumors have a very low recurrence risk.⁴ Utilization of intraoperative frozen section, if available, to confirm or rule out malignancy, helps to facilitate operative management and avoids unnecessary extensive surgery, without compromising optimal treatment.

CONCLUSION

Awareness of the deceptive malignant appearance of ovarian adenofibromas is of utmost importance. All possible measures should be taken to confirm a malignancy before radical surgery is attempted.

Clinical Significance

In the present case, the unilateral ovarian mass with radiological findings and gross appearance highly suspicious of a malignancy turned out to be a benign serous adenofibroma on histopathological examination and IHC. Thus, it is important to be aware of this benign condition to avoid radical surgeries, especially in young women who are desirous of childbearing.

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