

CASE REPORT

A Rare Case of Extensive Degeneration in Bilateral Ovarian Fibroma Mimicking Large Ovarian Cystadenoma

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ABSTRACT

Aim: To describe a rare variant of ovarian fibroma.

Background: Ovarian fibroma is a rare entity, but is the most common solid ovarian tumor. Most of these tumors are solid, and most commonly mistaken with uterine fibroid. In rare cases, they may show a mix of solid-cystic components.

Case description: In this case report, we present a rare case of bilateral ovarian fibroma with extensive cystic degeneration, appearing as predominantly cystic adnexal mass on ultrasound.

Conclusion: A rare condition with extensive degeneration may be impossible to distinguish with the ovarian epithelial tumor. Thus, ultrasound finding of a cystic lesion should not be used to exclude an ovarian fibroma.

Keywords: Cystic degeneration, Ovarian fibroma, Ultrasound.

Established Facts: Ovarian fibromas are mostly solid, and may sometimes appear as a mixed solid-cystic mass on ultrasound.

A unilocular cystic lesion on ultrasound usually excludes this tumor.

Novel insights: Extensive degenerations of ovarian fibroma are extremely rare and may cause the tumor to appear as the cystic adnexal mass.

When ultrasound examination shows a predominantly cystic lesion, a careful evaluation should be done, before excluding ovarian fibroma

How to cite this article: Pemayun TGA, Budiana ING. A Rare Case of Extensive Degeneration in Bilateral Ovarian Fibroma Mimicking Large Ovarian Cystadenoma. *J South Asian Feder Menopause Soc* 2018;6(2):139-141.

Source of support: Nil

Conflict of interest: None

Date of received: 21 June 2018

Date of acceptance: 10 December 2018

Date of publication: July 2018

BACKGROUND

Ovarian fibroma is part of sex-cord stromal cell tumors and is the most common benign solid ovarian tumor.¹

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These account for about 4% of all ovarian tumors.² Ovarian fibroma is reported to be unilateral in 90% of cases, and rarely bilateral.^{1,3} This clinical entity often misdiagnosed as subserous myoma due to the solid appearance from ultrasonography. Preoperative diagnosis accurate only in 21.7% of cases.³ Ovarian fibroma and ovarian fibrothecoma maybe associated with myxoid change and varying degree of edema, but rarely with extensive cystic degeneration.² In this paper, we present a rare case of large ovarian fibroma, showing dominantly cystic appearance.

CASE DESCRIPTION

A 58-year-old menopausal women (P0–unmarried), complained rapid abdominal enlargement within 2 months, accompanied by mild to moderate abdominal discomfort. Her general condition was good, and no abnormality was found other than abdominal mass. A large cystic mass sized 20 × 20 cm was palpable from abdominal examination. The mass was mobile and smooth-surfaced. Ultrasound study found a large complex predominantly cystic adnexal mass, with posterior enhancement, suggesting a cystic mass (Fig. 1). Colour Doppler revealed no neovascularization inside the tumor. During laparotomy, a large cystic smooth-surfaced adnexal tumor thought to be cystadenoma was seen (Fig. 2). Total hysterectomy was done. Histopathologic results



Fig. 1: A large, cystic, smooth-surfaced adnexal mass was seen during laparotomy

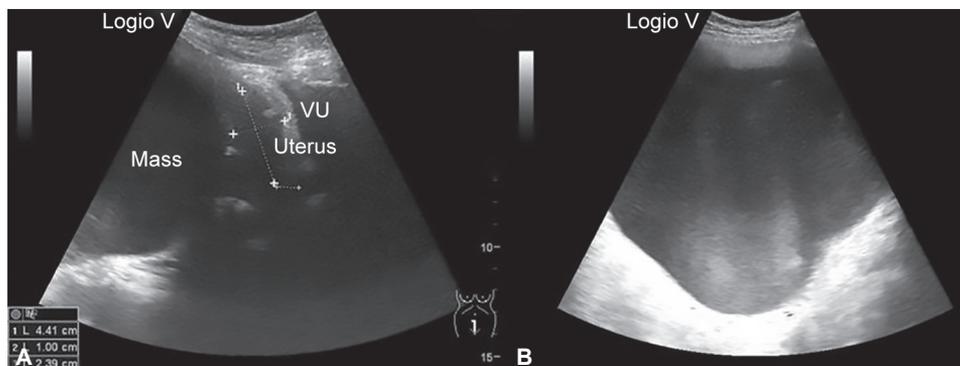


Fig. 2A and B: Preoperative ultrasound images. (A) A large cystic adnexal mass was seen, pushing uterus anteriorly, and no connection with uterus; (B) Posterior enhancement

showed tightly packed spindle cells producing collagen, suggesting an ovarian fibroma. The pseudocyst contains serous protein-rich fluid, with no epithelial lining.

DISCUSSION

Solid ovarian tumors are rare, and ovarian fibroma is the most common disease of this group. This tumor was first described by Astruc in literature. Ovarian fibroma is a tumor arising from the ovarian stroma, composed of entire fibroblasts and producing collagen. When the tumor contains mostly spindle cells with lipid droplets, it is termed thecoma. If both characteristics present, the tumor is termed as fibrothecoma.²

Mean age at presentation is 48-year-old, and only less than 10% occur before 30-year-old.⁴ The clinical presentation of fibroma is indistinguishable from other adnexal mass and may be associated with Meig's syndrome (ovarian fibroma, pleural effusion, and ascites) or Gorlin syndrome (bilateral ovarian fibroma, multiple basal cell carcinoma, odontogenic keratocyst, etc.). The main presenting symptoms are abdominal distension accompanied by mild to moderate degree of abdominal pain (>40%), while the remaining are asymptomatic. Other associated symptoms include urinary bladder pressure symptoms and changes in bowel habit.²

Fibromas are rarely bilateral (5% of cases).⁵ Preoperatively, ovarian fibroma is most often mistaken with a uterine fibroid, due to its solid nature.⁶ Most of the ovarian fibromas appear solid from ultrasound examination, but some cases may exhibit both solid and cystic components. A predominantly cystic lesion is a rare finding for ovarian fibroma. About 80% of cases appear as a solid mass, 15% as multilocular solid mass, 5% as multilocular cystic mass, but almost none as unilocular cystic mass, such in our case.⁶

The average diameter of fibroma is 6 cm.⁷ Large tumors (size >10 cm) have a smooth or slightly irregular

serosal surface and are solid.⁵ They may be associated with myxoid changes, varying degree of edema, and some parts of cystic degeneration, but rarely an extensive cystic degeneration.² Nevertheless, a case of extensive cystic degeneration in an accessory ovary has been reported.⁷ When fibromas undergo cystic degeneration, it may be mistaken as epithelial-stromal tumors. However, in ovarian fibroma, the pseudocysts do not have an epithelial lining.⁴ The mechanism of cystic degeneration is unclear, but may be due to a discrepancy between arterial supply and venous and lymphatic drainage.² Elevated CA-125 have been reported, but not common.² The presence of ascites with elevated serum CA-125 may further complicate the diagnosis.

CONCLUSION

Ovarian fibroma is an uncommon ovarian tumor. Most of these benign tumors are solid, but in rare cases, it may appear as cystic adnexal mass. Only minority of the cases are correctly diagnosed preoperatively. A rare condition with extensive degeneration such in this case may be impossible to distinguish with an ovarian epithelial tumor. Thus, ultrasound finding of a cystic lesion should not be used to exclude an ovarian fibroma.

CLINICAL SIGNIFICANCE

Extensive degenerations of ovarian fibroma are extremely rare and may cause the tumor to appear as a cystic adnexal mass.

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