

**BILATERAL OVARIAN FIBROMA: A CASE REPORT AND BRIEF LITERATURE
REVIEW**

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ABSTRACT

Ovarian fibromas are benign solid tumours of the ovary arising from ovarian connective tissue stroma and accounting for 1 to 4, 7% of all organic ovarian neoplasms. Usually, these ovarian tumors are unilateral. Bilateral ovarian fibromas are rare and occur in 2% of patients. We report a new rare case of bilateral ovarian fibroma in a 45 years woman, having history of lower abdominal pain. A laparotomy was performed, confirming this diagnosis.

KEYWORDS: bilateral ovarian fibroma; ultrasound; surgery.

INTRODUCTION

Ovarian fibromas belong to the group of sex cord stromal cell tumours and are the most common benign solid tumours of the ovary. The tumour mainly occurs in postmenopausal women and is unilateral in about 90% of the cases.^[1] Bilateral ovarian fibromas are rare. Here, we present a new case of bilateral ovarian fibroma in a perimenopausal woman.

CASE REPORT

A 45 years old perimenopausal woman, presented to gynecology outpatient department with the history of lower abdominal pain appeared 3 weeks before. On physical examination, mild tenderness was found on deep palpation of the right lower abdominal quadrant. Systemic examination did not show any abnormality. Transvaginal ultrasonography revealed a right ovarian mass, echogenic, without posterior shadowing; measuring 5 x 4 cm. Left ovary and uterus were normal. No free fluid was detected in the pouch of Douglas. CA125 levels were normal (≤ 35 IU/ml). An exploratory laparotomy was performed, which revealed the presence of bilateral ovarian tumours, measuring 5 cm on the right side and 2 cm on the left, were removed along with the uterus associating a bilateral salpingo-oophorectomy (**Figure 1**). Histopathological findings confirmed a diagnosis of bilateral ovarian fibroma. The patient had an uneventful postoperative course, and no recurrence was observed at 3 years follow-up

COMMENT

Ovarian fibroma was first described in the medical literature by Astruc in 1743.^[2] It represents an overgrowth of the ovarian stroma and is classified under the sex cord stromal tumors of the ovary. It is mostly seen in older menopausal patients.^[3] However, some authors report 2 peaks of frequency: the first peak of onset is after menopause and the second is between 20 and 40 years. The occurrence of these tumors before the age of 20 years is extremely rare.^[4,5] Usually, these ovarian tumors are unilateral. Bilateral ovarian fibromas are rare and occur in 2% of patients.^[3] The most common clinical presentation of ovarian fibroma is pelvic pain (like in our patient), but it may also present with pelvic mass, metrorrhagia, urinary or digestive signs, or an incidental finding. The clinical examination generally finds a solid, mobile tumor with a regular surface and a variable size.^[5,6] In the present case, clinical examination was difficult due to the patient's obesity. Two clinical associations are worth to mention. The first, presenting as a clinical triad (ovarian fibroma with peritoneal and pleural effusion), known as Meigs syndrome. This syndrome occurs in approximately 1 to 10% of ovarian fibromas.^[7] Meigs syndrome is a benign condition and the effusion resolves promptly following the resection of the fibroma. The second association is called Gorlin-Goltz syndrome (or basal cell nevus syndrome), characterized by bilateral ovarian fibromas, multiple basal cell carcinomas of the skin, odontogenic keratocysts of mandible, calcified dural folds, skeletal anomalies and distinct syndromic facies.^[8,9] It is an autosomal dominant disorder that occurs generally in

patients aged younger than 30 years.^[8] Finally, ovarian fibromas may also be associated with familial polyposis such as Gardner and Richard syndrome and Peutz-Jeghers syndrome. These last 2 syndromes are also autosomal dominant disorders.^[10] Our patient had no features suggestive of these syndromes. The investigation of ovarian fibromas is based on sonography. Broad spectrums of sonographic features are reported and include especially echogenic and mixed echogenicity masses.^[11] Hypoechoic masses are also reported.^[11] Troiano and associates stressed on the interest of magnetic resonance imaging in identifying up to 82% of ovarian fibromas. The latter show a low signal intensity on T2-weighted image.^[12] Mild elevation of CA125 serum levels is possible in ovarian fibroma, and they become normal after tumor removal.^[11] However, very high levels of CA125 are rare.^[11] Researchers believe that serum elevation of CA125 may be caused by mesothelial expression of CA125, rather than the fibroma alone.^[13] The treatment of these ovarian tumors is based on surgery. Tumorectomy is generally proposed to young women, whereas bilateral salpingo-oophorectomy is proposed to menopausal women. Macroscopically, all solid ovarian tumors look very similar and histological examination is essential to confirm the exact nature of these masses. Histologically, ovarian fibromas have a stromal origin and are composed in variable proportion of spindle fibroblastic cells, with abundant cytoplasm, which produce collagen. Occasionally lipid laden thecal cells may be seen. The neoplasm is then called fibrothecoma.^[6] Although the ovarian fibromas are a benign tumor, focal fibrosarcomatous changes may occur, represent less than 1% of the cases reported.^[6] and this can only be diagnosed by microscopy.



Figure 1: Macroscopic specimen view revealing bilateral solid ovarian masses (black arrows).

CONCLUSION

Ovarian fibromas are rare benign ovarian tumors of gonadal stromal cell origin. The diagnosis remains histological. Tumorectomy, if possible, is well indicated for young patients. However, radical treatment is indicated for perimenopausal and menopausal patients.

Nowadays, with the advancement in minimal-access surgery, laparoscopy is a good alternative for removing small to moderate sized ovarian fibromas.

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REFERENCES

1. Chechia A, Attia L, Temime RB, Makhoulouf T, Koubaa A. Incidence, clinical analysis, and management of ovarian fibromas and fibrothecomas. *Am J Obstet Gynecol*, 2008; 199(5): 473.e1-4.
2. Astrue J: Quoted by Clark ED, Gabe WE, Coe HC. *Am J Obstet Dis Women Child*, 1882; 15: 858.
3. Leung SW, Yuen PM. Ovarian fibroma: A review on the clinical characteristics, diagnostic difficulties, and management options of 23 cases. *Gynecol Obstet Invest*, 2006; 62(1): 1-6.
4. Howel CG, Rogers DA, Gable SD, Falls GD. Bilateral ovarian fibroma in children. *J Pediatr Surg*, 1990; 25(6): 690-691.
5. Laufer L, Barki Y, Maor E, Mares A. Ovarian fibroma in a prepubertal girl. *Pediatr Radiol*, 1996; 26(1): 40-42.
6. Sivanesaratman V, Dutta R, Jayalakshmi P. Ovarian fibroma, clinical and histopathological characteristics. *Int J Gynecol Obstet*, 1990; 33(3): 243-247.
7. Meigs JV. Pelvic tumors other than fibromas of ovary with ascites and hydrothorax. *Obstet Gynecol*, 1954; 3(5): 471-486.
8. Dallay D, Chabrand S, Sonmireu J, et al. Ovarian fibromas and the Gorlin-Goltz syndrome. *Rev Fr Gynecol Obstet*, 1985; 80(12): 873-876.
9. Gorlin RJ, Vickers RA, Klein E, Williamson JJ. The multiple basal cell nevi syndrome. *Cancer*, 1965; 18(1): 89-104.
10. Gargano G, Zito FA, Catino A, et al. Ovarian fibroma. A report of three cases. *Eur J Gynaecol Oncol*, 1995; 16(6): 509-515.
11. Athey PA, Malone RS. Sonography of ovarian fibromas/thecomas. *J Ultrasound Med*, 1987; 6(8): 431-436.
12. Troiano RN, Lazzarini KM, Scoutt ML. Fibroma and fibrothecoma of the ovary. MR imaging findings. *Radiology*, 1997; 204(3): 795-798.
13. Benjapibal M, Sangkarat S, Laiwejpithaya S et al. Meigs' syndrome with elevated serum CA125: case report and review of the literature. *Case Reports in Oncology*, 2009; 2(1): 61-66.