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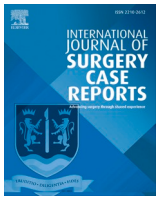

Case report

Primary ovarian fibroma in a postmenopausal woman: A case report

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ABSTRACT

Introduction: Primary ovarian leiomyoma is a rare benign tumor of the ovary seen in women between 20 and 65 years old. Clinical, ultasonographic and tumor marker data remain the best preoperative approach currently available for ovarian tumours. Only pathological examination can establish the diagnosis.

Case presentation: We describe a case of unilateral, ovarian leiomyoma. The abdomino-pelvic Computed tomography (CT) and magnetic resonance imaging (MRI) revealed a left adnexial mass. A hysterectomy without adnexal preservation was performed, and histological examination revealed a leiomyoma arising primarily in the ovary. The diagnosis was confirmed immunohistochemically.

Discussion: The tumor may be asymptomatic or may manifest with lower abdominal pain associated to metrorrhagia like in our case. The definitive diagnosis of these lesions is difficult prior to surgical removal. Because there is no pathognomonic symptoms or characteristic imaging findings. The correct diagnosis of an ovarian leiomyoma is confirmed immunohistochemically.

Conclusion: This rare tumor of the ovary should be considered in the differential diagnosis of solid ovarian masses. An immunohistochemical analysis is recommended for definitive diagnosis.

1. Introduction

Uterine myoma or leiomyoma is a benign tumor of the smooth muscle tissue of the uterus. Ectopic localizations are rare.

Ovarian fibromas are uncommon. They represent 1% of organic ovarian neoplasms [1] and are generally benign. These lesions often appear in elderly postmenopausal patients. Clinical, ultasonographic and tumor marker data remain the best preoperative approach currently available for ovarian tumours. Only pathological examination can establish the diagnosis [2].

We report the case of an ovarian fibroma in a postmenopausal patient managed for an adnexial mass in a context of chronic pelvic pain and metrorrhagia.

This work has been reported with respect to the SCARE 2020 criteria [3].

2. Case presentation

A 64-year-old patient known to be hypertensive and on treatment, mother of 8 children born by vaginal delivery, menopausal for 10 years, consulted for chronic pelvic pain associated with postmenopausal metrorrhagia evolving for one year in a context of conservation of the general state. The clinical examination revealed a patient in good general condition with a pelvic mass halfway to the umbilicus on abdominal examination.

The abdomino-pelvic CT scan showed a polylobed left latero-uterine tissue mass measuring 15 × 10 cm in close contact with the uterine wall and taking contrast homogeneously without infiltration of the surrounding organs (Fig. 1).

Pelvic MRI showed a large, well-limited mass with polylobed contours in the median and left latero-uterine area, in heterogeneous T1 and T2 hyposignal with discrete diffusion hypersignal, enhancing heterogeneously after injection of gadolinium. It measured 103 × 96 × 110 mm (Fig. 2). A small pelvic effusion was associated. The CA125 level was 19 IU/ml.

Surgical exploration revealed a mass in the left ovary measuring 15 cm and adherent to the uterus. A total hysterectomy without adnexal preservation was performed (Fig. 3). The postoperative course was without any complications. Anatomopathological examination of the surgical specimen revealed a mutlilobulated nodular formation

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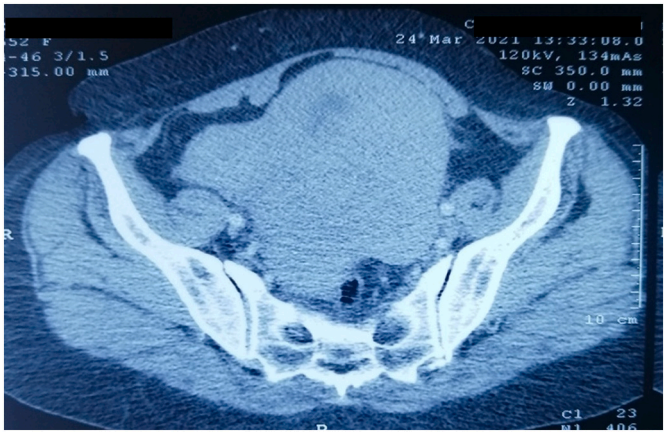

Fig. 1. Abdomino-pelvic CT showing a polylobed left latero-uterine tissue mass measuring 15 × 10 cm in close contact with the uterine wall.

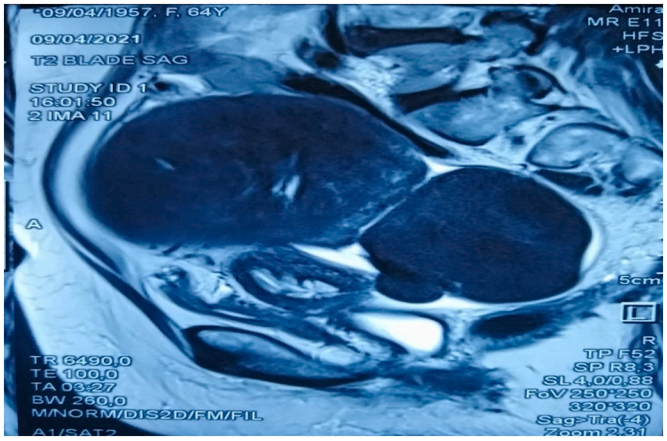

Fig. 2. Pelvic MRI showing a large, well-limited mass with polylobed contours in the median and left latero-uterine area measuring103 × 96 × 110 mm.

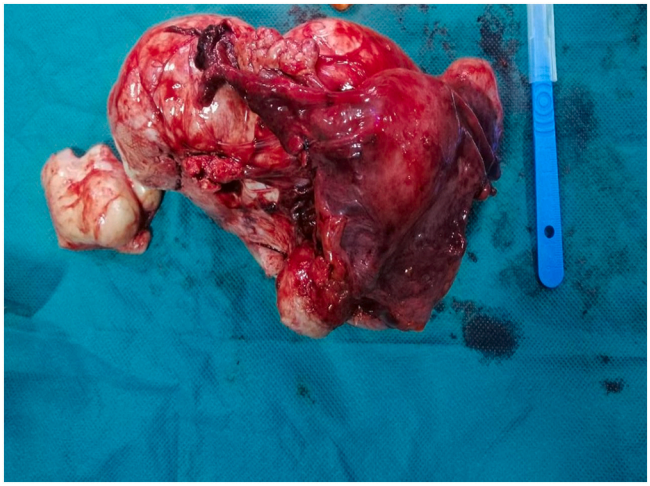

Fig. 3. Image of the surgical specimen.

measuring 22x11x10.5 cm. Histological examination revealed a proliferation of spindle cells arranged in intersecting bundles. The cellularity was sometimes high, sometimes low, without signs of marked atypia, in favour of an ovarian fibroma.

3. Discussion

Uterine myoma or leiomyoma is a benign tumor of the smooth muscle tissue of the uterus [4]. The extrauterine localization is rare and of poorly known physio-pathogenesis, and it poses a diagnostic problem [5].

The ovarian fibromas are rare benign tumours. They represent only 1% of all ovarian tumours [1]. They represent an anatomopathological variety of fibrothecal tumours of the ovary, which are stromal tumours, containing spindle-shaped connective cells, thecal cells or both types of cells associated [6].

Ovarian fibromas are seen between the ages of 20 and 65. The average age is in the fifth and sixth decades [7]. They may be bilateral in 4–8% of patients and multiple in 10% of cases [8], particularly in Gorlin's syndrome [9], or associated with pleural effusion and ascites in Meigs' syndrome [10].

The circumstances of discovery are very variable and dominated by pelvic pain and metrorrhagia, as in our patient [11,12]. The diagnosis may be fortuitous, or during an investigation of a pelvic mass [13].

The major difficulty is to differentiate between ovarian fibroma and other solid ovarian tumours [14]. Cystic degeneration and hemorrhage are common, but calcification in ovarian fibromas is rare.

Bilateral ovarian leiomyomya is seen in pediatric and young female and that are usually not associated with uterine leiomyoma counterpart as if seen in perimenopausal female.

Radiological exploration is often insufficient to give a precise diagnosis. The sonographic appearance is that of an echogenic mass associated with multiple shadow cones that are not related to calcifications but to the attenuation of the ultrasound beam produced by the fibrous tissues [15]. Ultrasound is not conclusive, and a magnetic resonance imaging (MRI) examination may be proposed.

Ovarian fibroma is described to typically show low signal intensity on T1-weighted MR images, and marked hypo-intensity on T2-weighted images; the contrast medium enhancement of fibromas is heterogeneous and mild-to moderate [13].

The correct diagnosis of an ovarian fibroid requires identification of the smooth muscle nature of the tumor.

Ovarian leiomyomas must also be differentiated from leiomyosarcomas. To do so, pathologists use criteria such as the number of mitoses, cytologic atypia, and tumor necrosis. In our case, none of these criteria were detected [7].

The recommended treatment is surgical.

Salpingo-oophorectomy can be considered in perimenopausal or postmenopausal women, and cystectomy can be performed only in young women [16].

4. Conclusion

Ovarian fibromas are rare, preoperative diagnosis is very difficult, surgery with histological study is used to establish the diagnosis. An updated literature review should describe the incidence of these tumours in order to remove the controversy about their existence, as they are increasingly revealed in the literature.

Provenance and peer review

Not commissioned, externally peer-reviewed.

Consent

Written informed consent for publication of their clinical details and/or clinical images was obtained from the patient.

Ethical approval

I declare on my honor that the ethical approval has been exempted

by my establishment.

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Author contribution

Dr. Bouab Maryem: Corresponding author, writing the paper.

Registration of research studies

None.

Guarantor

Dr. BOUAB Maryem.

Declaration of competing interest

The authors declare having no conflicts of interest for this article.

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