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Bilateral Ovarian Fibroma: About a Case Seen at Chu Anosiala, Antananarivo

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Abstract

Ovarian fibroma is a tumor of the stroma and sex cords of the ovary. It is rare and represents 1% to 4% of benign ovarian tumors. It is sometimes associated with Demons-Meigs syndrome, raising suspicion of malignancy at the clinical and paraclinical stages. We report a case of bilateral ovarian fibroma diagnosed in the Pathological Anatomy Department of CHU Anosiala. A 46-year-old woman presented with abdominal pain and pollakiuria. Clinical examination revealed a palpable abdominopelvic mass lateralized to the right. Ultrasound suspected leiomyoma. Foci of microcalcifications were observed. The patient underwent bilateral adnexectomy. The histological study confirmed the diagnosis of bilateral ovarian fibroma. This is the first case of ovarian fibroma reported at the CHU Anosiala.

Keywords

Antananarivo, Bilateral, Ovarian Fibroma, Pathological Anatomy

1. Introduction

Ovarian fibroma is a very rare tumor [1] [2] despite being the most frequent solid tumor of the gonadal stroma. It often poses diagnostic problems on the one hand with a functional lesion and on the other hand their benign or malignant nature [3]. It is described especially after the menopause. It is sometimes associated with other syndromes such as Demons-Meigs syndrome and Gorlin-Goltz syndrome, which sometimes raises suspicion of malignancy [3]. No study concerning bilateral ovarian fibroma has been published in Madagascar and in Anosiala Hospital University Center. Our objective in this study is to investigate the clinical and histological aspect of this case in our pathology department. We had

the patient's verbal agreement before carrying out our research.

2. Observation

This is a 46-year-old woman, nulliparous, with no particular personal or family history. She consulted for abdominal pain associated with pollakiuria. Clinical examination revealed a palpable abdominopelvic mass lateralized to the right, independent of the uterus on vaginal examination, without ascites. The mass was well delimited, hard, mobile, measuring 9 cm in diameter, with signs of compression. Ultrasound showed an echogenic latero-uterine mass of the same density as the uterine wall, without peritoneal effusion. Chest X-ray showed no pleural effusion. The pelvic X-ray found an oval formation with more or less regular contours, rather poorly defined, heterogeneous, in pelvic projection, measuring 9 × 5 cm (Figure 1). The laparotomy discovered the right ovary increased in volume. A bilateral adnexectomy was performed. Histological examination showed a right ovary of 11 × 9 × 7 cm and a left ovary of 3 × 2 × 1 cm (Figure 2; Figure 3). The cutting sections were whitish and fasciculated, crunching under the knife (Figure 4). Histological examination found in both ovaries a proliferation of non-atypical spindle cells, sometimes grouped in interspersed bundles, arranged within a collagenous stroma, with large foci of hyaline remodeling and calcification. Figures of mitosis were absent. We retained the diagnosis of bilateral ovarian fibroma (Figure 5). The prognosis was excellent after total and bilateral removal of both ovaries.

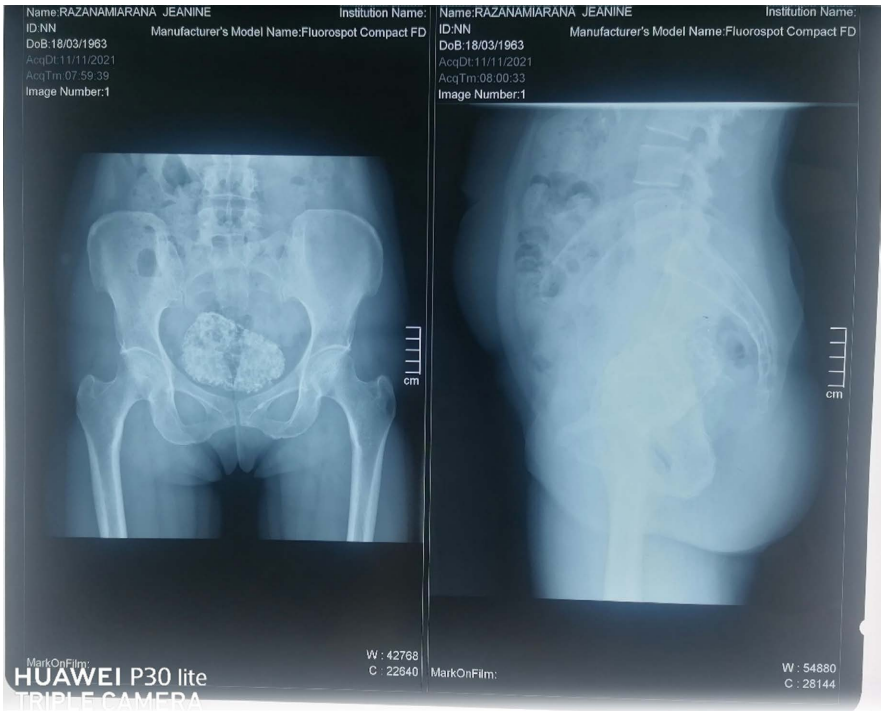

Figure 1. Pelvic X-ray: oval formation with more or less regular contours, rather poorly defined, heterogeneous, in pelvic projection, measuring 9 × 5 cm Source: Surgical Pathology Department of CHU Anosiala.

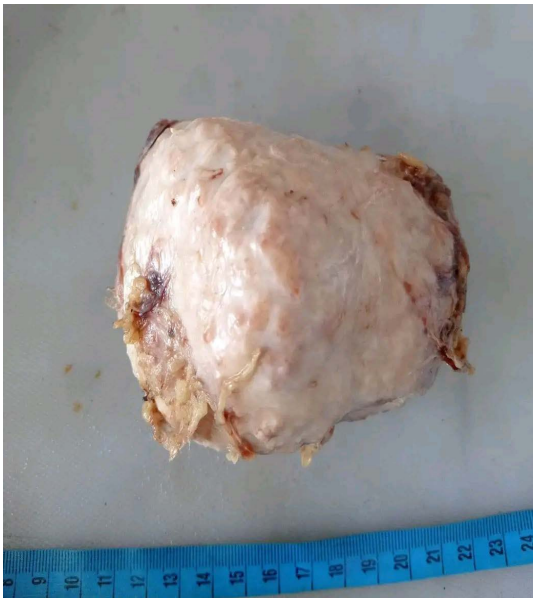

Figure 2. Right ovary: macroscopic view. Source: Pathological Anatomy Department of CHU Anosiala.

Figure 3. Left ovary 3 cm of diameter: macroscopic aspect. Source: Pathological Anatomy Department of CHU Anosiala.

Figure 4. Right ovary: macroscopic aspect of cutting surface after black inching outer surface. Source: Pathological Anatomy Department of CHU Anosiala.

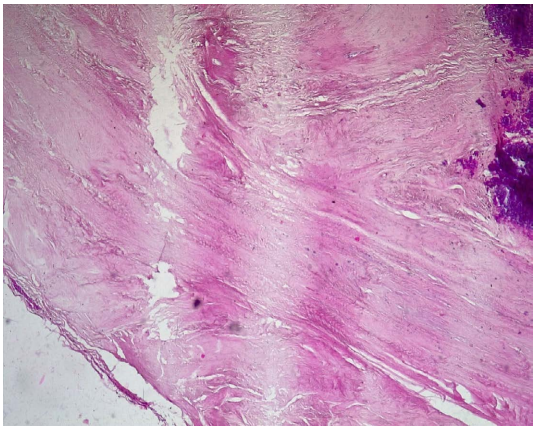

Figure 5. Right ovarian parenchyma: ovarian fibroma, HE ×100. Proliferation of non-atypical spindle cells with wide areas of fibro-hyaline remodeling and a few foci of calcifications. Source: Pathological Anatomy Department of CHU Anosiala.

3. Discussion

Ovarian fibroma is a very rare benign tumour. It represents less than 1% of ovarian tumors. It belongs to the group of fibrothecal tumors of the ovary [3].

The discovery circumstances are variable and dominated by pelvic pain and metrorrhagia [1] [2] [3]. The metrorrhagia would be related to an endocrine syndrome when the tumor is hormone-secreting [4]. Clinically, the tumor presents as a solid, mobile mass with a regular surface and highly variable in size [1] [2] [4]. This is the case of our patient, whose mass caused pelvic pain, without metrorrhagia.

The occurrence of these tumors before the age of 30 is extremely rare [5]. In other studies, this tumor is observed in elderly patients who are postmenopausal [6]. According to a case series conducted by Sy and al in Guinea, the mean age of patients at diagnosis was 42.6 years. The extremes were 26 years and 71 years [7]. Our patient is 46 years old, quite the same as the mean age found in Guinea.

Ovarian fibroma is usually unilateral, except when it is part of Gorlin-Goltz syndrome [8] [9]. They are most often multifocal, and most often present with calcifications.

On imaging, the lesion usually appears homogeneous hypoechoic with posterior attenuation, however it may in some cases appear as a hyperechoic mass with posterior enhancement. Stephenson and Lang [10] described an ultrasound image that would be strongly suggestive of a fibrous ovarian tumor; it is an echogenic image with a significant accentuation of the acoustic shadow cone. In our case, the ultrasound images were echogenic.

Certain associations or clinical forms, although rare, deserve to be specified. Demons Meigs syndrome, which combines ovarian fibroids, ascites and hydrothorax, is observed in 1% to 10% of ovarian fibromas [3]. The pleural and peritoneal effusion generally regresses rapidly after tumor removal. In our case, the patient presented neither pleural effusion nor ascites.

Macroscopically, the ovarian fibroma is quite similar to uterine leiomyoma,

with a white and chalky surface, a convoluted aspect. It is firm, and sometimes calcified on cutting sections. This is the same case our patient. We had noted on macroscopy a fasciculate whitish surface, translucent with calcic change, crunching under the knife. Calcium remodeling is sometimes present in fibroma. No cystic change was seen. Histologically, ovarian fibroma is a rare mesenchymal tumor composed of the intersection of bundles of fibroblasts producing large amount of collagen. Larger lesions may contain cystic degeneration and varying degrees of myxoid remodeling [4]. We noted a proliferation of non-atypical spindle cells, grouped in bundles sometimes interspersed in a collagenous stroma, with significant hyaline change and calcifications. Mitosis was absent. No sign of malignancy was detected despite the bilateral nature of the tumor [4]. For Prat and Scully, the tumor is benign if there are less than three mitoses per field. Otherwise, the tumor corresponds to a fibroblastic sarcoma [11].

4. Conclusion

Ovarian fibroma is a rare benign tumor of the ovary, frequently occurring in postmenopausal women. It can be revealed by pelvic pain and compression signs such as pollakiuria. It can be unilateral or bilateral. The anatomopathological examination remains the key examination for the diagnosis of ovarian fibroma.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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