

## Cystic Degeneration of Ovarian Fibroma Simulating Ovarian Cancer: About a Case Report and a Review of the Literature

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### Abstract

The epithelial tumors of the ovary are very varied in nature, they often pose difficult diagnostic problems: on the one hand to assert their organicity so as not to overtreat a functional lesion and on the other hand to appreciate their benign or malignant nature. Among them, we can mention the ovarian fibroma which is a rare tumor representing less than 1% of all ovarian tumors. Cases of cystic degeneration of this fibroma simulating ovarian cancer are described in the literature. We report a case of this type of degeneration affecting ovarian fibroma and taken for ovarian cancer, despite the explorations in medical imaging, but considering the appearance of the mass and the absence of peritoneal carcinomatosis at the exploratory laparotomy, a Limited excision was recommended pending the results of the pathological examination in the diagnosis of this malformation. Through this observation, we will analyze the symptomatology of this clinical form which mistakenly mimics an ovarian cancer and also discuss the interest of ultrasound and the determination of tumor markers in the diagnostic approach as well as the therapeutic attitude to adopt in this clinical form.

**Keywords:** Ovarian myoma, cystic degeneration, ovarian cancer, extemporaneous histological examination.

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### INTRODUCTION

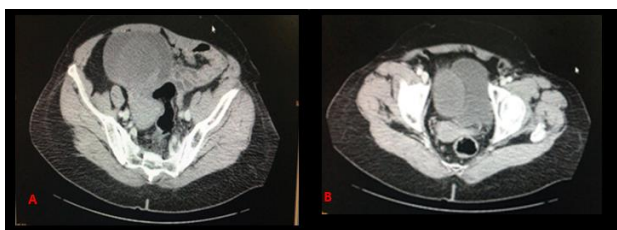
Ovarian fibroma is a generally voluminous tumor whose average size is 140 mm as reported in the literature, it represents 1% of epithelial tumors of the ovary which are very varied in nature with sometimes difficult diagnostic problems to appreciate their Benin or malignant character [1]. The rare cases of cystic degeneration of a fibroid simulating ovarian cancer are described in the literature. We report a case of this type of degeneration affecting ovarian fibroma and taken for ovarian cancer despite the explorations in medical imaging.

### OBSERVATION

This is a 69-year-old multiparous, menopausal patient, admitted to our training for the management of chronic pelvic pain without bleeding or other associated signs. Clinical examination found a hemodynamically and respiratory-stable patient with normocolored conjunctiva with gynecological examination objectified

a normal soft-tailed cervix with a normal-sized uterus. Pelvic ultrasound showed uterus of normal size, homogeneous endometrium, right ovary seat of a heterogeneous image made of 110mm / 80mm with a double mixed component and whose cystic component is predominant, multilocular vascularized Doppler, no pelvic effusion. An AP CT scan (Figure A-B) showed the presence of a voluminous solidocystic right lateral mass of 120/82/145 mm and ovarian vesical probably of ovarian origin with doubt about an invasion of the uterus, there is no ascites or carcinomatosis nodule. From a biological point of view, the CA125 tumor marker was normal. The patient had a laparotomy with no ascites, uterus of normal size, left appendix without any particularity, presence of a purely cystic mass of 140 / 100mm at the expense of the right ovary without exophytic excrescence, moreover liver and smooth stomach, no nodules of carcinomatosis, no palpable pelvic or lomboarctic ADP, in front of this aspect, a limited excision was recommended pending the results of the anatomo-pathological examination and the

patient had benefited from a straight appendectomy with multiple biopsies for staging whose histological study returned to favor cystic degeneration of ovarian fibroma.



**Figure A-B:** CT AP, Axial section showing a large solidocystic right lateral mass of 120/82/145 mm and ovarian vesical probably of ovarian origin

## DISCUSSION

Ovarian fibroma is a rare tumor that accounts for less than 1% of all ovarian tumors. The average age of reported cases is 63 years with extremes of 52 years [1] and 76 years [2]. It is a generally voluminous tumor with an average size of 140mm, the largest reported ovarian fibroma measuring 300mm / 200mm / 100mm [2]. Their macroscopic appearance is very variable, it is most often a solid stromal tumor more rarely a cystic tumor called cystadeno-fibroma [3].

Clinically, the major difficulty is to differentiate between ovarian fibroma and other solid ovarian tumors. In a young woman, germ cell tumors such as dysgerminomas, which are malignant tumors with a good prognosis, and dysembryomas, especially the dermoid cyst, must be discussed [4].

Medical imaging provides the most diagnostic orientation. Pelvic ultrasound can approach the benign or malignant nature of the tumor with a sensitivity of 90% and a specificity of 87% [4, 5] but in solid tumors, this sensitivity is less good because the images are more varied and less specific. The most frequent image of ovarian fibroma is that of a solid hypodense mass without calcification, this image is also found in ovarian seminoma, but the use of doppler makes it possible to better specify the type of tumor. [5]. The interest of CT and MRI lies mainly in the detection of peritoneal, diaphragmatic or omental carcinomatosis, the absence of which constitutes an important element leading to benignity in this context [5, 6]

With regard to tumor markers, the increase in CA 125 in ovarian fibroma, which is much higher than that observed in ovarian cancers, has been reported according to the studies, This association of ovarian fibroma with A significant rise in CA 125 is a finding that is still open to discussion in relation to its physiopathological explanation [6]. However, this is not a good screening test because CA 125 can be increased in other pathological situations as well [7].

Overall, clinical data, ultrasonography, and CA 125 assay do not provide a definitive differential diagnosis between ovarian fibroma and malignancy [8]. Exploratory laparotomy is then required using a broad approach, in the opening the encapsulated nature of the tumor, the absence of peritoneal carcinomatosis and contralateral ovarian involvement orient a little more the diagnosis. Extemporaneous histological examination can then be of great value in optimizing the extent of surgical excision by confirming the fibromatous and benign nature of the tumor [9, 10].

Diagnostic doubt often leads the operator to carry out a more or less extensive resection, all 8 patients reported in the literature have benefited from a total hysterectomy with bilateral adnexectomy, 3 of them had in addition a omentectomy [11]. But this attitude, certainly encouraged by the advanced age of the patients, proved a posteriori too aggressive after the anatomo-pathological examination of the operative specimen [10, 11]. The extemporaneous histological examination can then be of great utility to optimize the extent of the surgical excision by confirming the fibromatous and benign nature of the tumor. But here again, the reliability is not 100%; because it can be faulted if the tumor is in the form of a cellular fibroid that can be confused with sarcoma [11].

## CONCLUSION

Cystic degeneration of ovarian myoma, though rare, can be enormous and simulated ovarian cancer despite the diagnostic support of medical imaging. It is necessary to think about it in front of a renitent adnexal mass in a clinical context of uterine myoma. The diagnosis is usually made during the exploratory laparotomy, the benign nature of this tumor on the extemporaneous histological examination then recommends toperform a limited resection in first intention pending the results of the anatomopathological examination of the operative specimen.

## RÉFÉRENCES

1. Baltarowich OH, Kurtz AB, Pennell RG, Needleman L, Vilaro MM, Goldberg BB. Pitfalls in the sonographic diagnosis of uterine fibroids. *American Journal of Roentgenology*. 1988 Oct 1;151(4):725-8.
2. Aydin C, Eriş S, Yalçın Y, Selim HŞ. A giant cystic leiomyoma mimicking an ovarian malignancy. *International journal of surgery case reports*. 2013 Jan 1;4(11):1010-1012.
3. Kamiński P, Kosińska-Kaczyńska K, Marczevska J, Gajewska M. Huge uterine leiomyoma with degenerative changes mimicking ovarian carcinoma—a case report. *Ginekologia polska*. 2013;84(2):147-150.
4. Jonas HB, Masterson B. Geant uterine tumors. *Obstet Gynecol*, 1977; 50: 2-4.

5. Kulshrestha R, Lakhey M, Rani S. Massive cystic degeneration of a uterine leiomyoma presenting as an ovarian cyst: a case report. *Indian journal of pathology & microbiology*. 2003 Jan;46(1):86-8.
6. Lansac J, Lecomte P, Marret H. *Gynécologie pour le praticien*. 8e Eds. Paris. Elsevier-Masson; 2012: 65-80.
7. Low SC, Chong CL. A case of cystic leiomyoma mimicking an ovarian malignancy. *Annals-Academy of Medicine Singapore*. 2004 May 1;33:371-4.
8. Mayer DP, Shipilov V. Ultrasonography and magnetic resonance imaging of uterine fibroids. *Obstetrics and gynecology clinics of North America*. 1995 Dec;22(4):667-725.
9. Rouzier R, Berger A, CUGNENC PH. Syndrome de Demons-Meigs: peut-on faire le diagnostic en pré-opératoire. *Journal de gynécologie obstétrique et biologie de la reproduction*. 1998;27(5):517-22.
10. Le Bouedec G, Glowaczower E, De Latour M, Fondrinier E, Kauffmann P, Dauplat J. Le syndrome de Demons-Meigs: à propos d'un fibrothécome et d'un fibrome ovariens. *Journal de gynécologie obstétrique et biologie de la reproduction*. 1992;21(6):651-654.
11. Siddiqui M, Toub DB. Cellular fibroma of the ovary with Meigs' syndrome and elevated CA-125. A case report. *The Journal of reproductive medicine*. 1995 Nov;40(11):817-9.