

Case Report

A Case Report of a Giant Fallopian Tube Leiomyoma Mimicking a Mesenteric Tumor

S. Takongmo,¹ E. Nkwabong,² Z. Sando,³ A. Dongmo,¹ C. Monabang,⁴ and S. Nko'o⁴

¹Department of Surgery and Specialties, Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, Cameroon

²Department of Obstetrics & Gynecology, Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, Cameroon

³Department of Pathology, Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, Cameroon

⁴Department of Radiology, Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, Cameroon

Address correspondence to E. Nkwabong, enkwabong@yahoo.fr

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Abstract Leiomyomas are benign tumors usually found in the uterus although other organs such as the vagina and the ovaries can be involved. The most common etiology of tubal disorders is infection, but tubal leiomyomas remain a rare possibility. We hereby present a case-report of fallopian tube leiomyoma undiagnosed preoperatively despite the technological progress in radiologic imaging. The diagnosis was only made at laparotomy. In this case report, diagnostic measures and the difficulties encountered are discussed.

Keywords abdominal mass; fallopian tube fibroid; diagnosis

1 Introduction

Leiomyomas are benign tumors that usually develop in the uterus with very rare involvement of other organs. Consequently, fallopian tube malignancies and leiomyomas are very rare [13], and are not usually discussed in the differential diagnosis of abdominal or genital tumors. Diagnosing fallopian tube leiomyoma by radiologic means is difficult [2]. The diagnosis is usually made during surgery despite technological progresses in radiologic imaging. We hereby present a case of a fallopian tube leiomyoma which preoperatively was misdiagnosed as a mesenteric tumor.

2 Case report

Mrs XJ, 34 years old, G1P0, was received on February 19, 2009 presenting with per vaginal bleeding. Her last menstrual period was on the 26th December 2008, giving a gestational age of 8 weeks. Her past medical history was without any peculiarities. On physical examination, her general state was good but her abdomen was distended and a firm abdominopelvic mass measuring 25 cm above symphysis pubis was palpated. The abdominal girth was 88 cm. Speculum examination revealed bleeding coming from the cervical os. On digital vaginal examination, the

cervix was 2 cm dilated and the products of conception were felt in the cervical canal. The diagnosis of an incomplete or inevitable abortion was made. A gentle curettage brought trophoblastic tissue. Hysterometry showed a uterine size of 8 cm. Later on, an abdominal ultrasonography revealed a nonspecific abdominopelvic mass and a uterus of normal size. A computerized tomography scan was in favor of a mesenteric tumor (Figure 1). An explorative laparotomy was done 14 days later under general anesthesia. A firm and pedunculated tumor of the right fallopian tube with adhesions to the greater omentum was discovered. The greater omentum was gently separated from the tumor. The tumor (Figure 2) which measured 30 cm was removed. The right tube was left in place since it was not obstructed by

Right fallopian tube fibroid



Figure 1: Abdominal mass (mesenteric tumor according to computerized tomography).

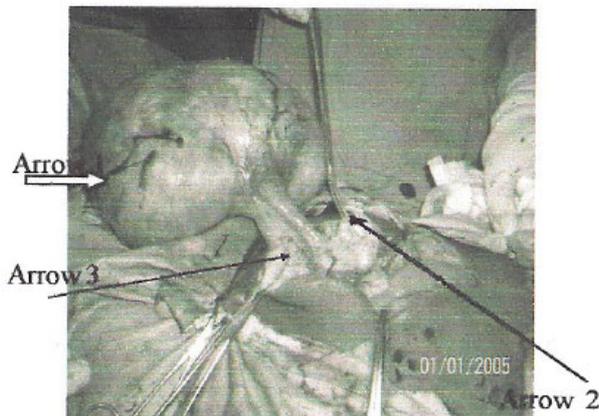


Figure 2: Right fallopian tube pedunculated fibroid (arrow 1) put on the pubis, then the right ovary (arrow 2) and the uterine funds (arrow 3).

the tumor. Post operative recovery was good and the patient discharged 8 days later. The pathology report concluded for a fallopian tube leiomyoma.

3 Discussion

Leiomyomas (fibroids) are mesenchymatous benign tumors that develop on smooth muscle fibers [2]. It usually affects the uterine myometrium even though other organs such as the ovaries and vagina could be involved [3, 7, 8]. Its occurrence on the fallopian tube is a rare possibility although some cases have been published [2, 13]. The incidence of fallopian tube fibroid is not precisely known.

Risk factors for uterine fibroids are nulliparity, obesity or overweight, family history of fibroids, black race, late reproductive age [4, 9, 12], polycystic ovary syndrome and hypertension [9], and perhaps alcoholism and hormone replacement therapy [12]. Growth factors with mitogenic and angiogenic activity, such as transforming growth factor, basic fibroblast growth factor, epidermal growth factor and insulin-like growth factor-1, are elevated in fibroids as the tumor may be under the effects of estrogen and progesterone [4, 9]. Risk factors for fallopian tube fibroid are yet unknown given the limited number of cases published. In the published cases, patients affected were 35 years old and over [2, 13]. Our patient was 34 years old and was nulliparous. Advanced reproductive age and nulliparity may be risk factors for fallopian tube fibroids, as is the case with uterine fibroids.

Clinically, fallopian tube fibroids are usually asymptomatic since they are most often small and unilateral [13]. In our case, it was a gigantic tumor given the delayed consultation. Other clinical signs include pelvic discomfort, abdominal distension, or symptoms related to the compression of neighboring organs such as the bladder, the ureter, or the digestive tract. Such is the case

with big masses as recorded in our patient. Menorrhagia is usually absent since the endometrium is not compromised; unless uterine fibroids are associated. Uterine fibroids can be associated with spontaneous abortion. In the case of our patient, spontaneous abortion might have been due to compression of the uterus by the huge fallopian tube fibroid since her uterus was normal, or to other unexplored causes.

Paraclinical diagnosis of fallopian tube leiomyoma is usually difficult because of its lateral position especially if it is huge, the diagnosis usually made being that of an ovarian mass. In our case, the diagnosis could neither be made by ultrasonography nor by computerized tomography scan. It was rather misdiagnosed as a mesenteric tumor. Fallopian tube fibroid is discovered incidentally either during autopsy or during unrelated surgery [13]. In our case, the fibroid was discovered only during surgery, and was situated on the superior border of the tubal ampullar region (antimesosalpingeal edge of the ampulla). If the tubal fibroid is small in size, transvaginal ultrasonography may show a hypoechogenic solid mass separated from the ovary and the uterus. Moreover, color Doppler ultrasonography will show low impedance flow in the mass [13]. In cases of small sized fibroids, the diagnosis can also be made by laparoscopy. If the fallopian tube fibroid is huge however, ultrasonography, computerized tomography scan and even laparoscopy will not specify the tubal origin of the tumor because the anatomy of the pelvis is distorted by the tumor [2]. We have realized in this case that computerized tomography is not precise in determining the origin of tumor. Furthermore, it is also imprecise in showing the relationship of the tumor with other organs except where the tumors compress these organs. This fact has already been noticed by some authors [11]. The final histopathologic diagnosis must however be made by the pathologist.

Before surgery, differential diagnosis in the case of a small mass can include tubo ovarian abscess [6], mature solid teratoma of the fallopian tube [1], ovarian tumor [5], or even tubal carcinoma [10]. The treatment is surgical; adnexectomy or salpingectomy can be done or just excision of the fibroid as in our case. The prognosis is usually good since the tumor is benign.

4 Conclusion

Although fallopian tube fibroid is very rare, this case report reminds us that in the presence of a firm adnexal mass in a nulliparous woman of advanced reproductive age, without other signs, the differential diagnosis should include fallopian tube leiomyoma.

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