

## 121 UTERINE FIBROIDS – MYOMECTOMIES AS CONSERVATIVE SURGERIES

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### ABSTRACT

Fibroids are benign tumors with a high prevalence among women of reproductive age. Their clinical presentation is heterogeneous, including abnormal uterine bleeding, pelvic pain, and infertility. The gold standard for diagnosis is ultrasonography, with magnetic resonance imaging and hysteroscopy serving as complementary methods. Treatment varies according to the patient's individual characteristics, with a focus on fertility preservation to guide clinical or surgical intervention. This report describes the case of a 31-year-old patient diagnosed with uterine fibroids who underwent myomectomy. During the procedure, 121 fibroids were removed, including subserosal and intramural fibroids of varying sizes, ranging from 0.5 cm to 10 cm in diameter within the uterine cavity. The procedure was successful, preserving the uterus, fallopian tubes, and ovaries. This case highlights the importance of an individualized approach to the management of uterine fibroids, emphasizing the role of multidisciplinary teams and modern techniques. Myomectomy proved effective in preserving fertility in complex cases, with rigorous follow-up required to ensure favorable outcomes.

**Keywords:** Fibroid, Hysteroscopy, Uterine myomectomy, Case reports, Fertility.

### INTRODUCTION

Fibroids, also known as leiomyomas, are benign tumors of the uterine muscular wall, with high prevalence in women of reproductive age. The symptoms of fibroid disease are heterogeneous; most patients remain asymptomatic or progress gradually with the evolution of the fibroids. Symptoms are also associated with the size, quantity, and location of the fibroids. In cases of large fibroid disease, symptoms may include pelvic pain, dyspareunia, dysmenorrhea, urinary incontinence, abnormal uterine bleeding, and impaired fertility<sup>1</sup>.

The treatment of fibroid disease is individualized, highlighting the characteristics of each patient<sup>2</sup>. However, a coherent diagnosis is necessary to initiate treatment. Initially, the pelvic physical examination provides valuable information, and at this point, the healthcare professional should be attentive to the presence of an enlarged uterus or masses and uterine sacral areas. As the gold standard, ultrasound

(USG) allows for an easy and low-cost diagnosis. Additionally, saline-enhanced ultrasound helps diagnose submucosal fibroids and indicates the distance of intramural fibroids from the endometrial cavity. Hysteroscopy may also be necessary to distinguish intracavitary fibroids from large endometrial polyps. For surgical planning, magnetic resonance imaging (MRI) can provide important information about the number of fibroids, their size, vascularization, relationship with the endometrial cavity and serosal surface, and boundaries with normal myometrium.<sup>2,3</sup>

In light of this, treatment strategies should be guided by the patient's desire to preserve fertility, the symptoms, and the severity of the fibroids. Medical therapies include progestin-based medications, intrauterine devices releasing progesterone, and gonadotropin-releasing hormone (GnRH) agonists. Surgical strategies include myomectomy via laparotomy or laparoscopy, uterine artery embolization, and hysterectomy.<sup>2</sup>

## CASE REPORT

A 31-year-old female patient, followed at Clínica Fértil by Dr. Waldemar Naves do Amaral and his team, was diagnosed with uterine fibroids after presenting with symptoms of abnormal uterine bleeding and persistent pelvic pain. The diagnosis was confirmed through imaging exams, revealing multiple uterine fibroids of various sizes and locations.

After the clinical evaluation and considering the patient's persistent symptoms and the impact on her quality of life, a surgical approach was recommended. The patient underwent a Pfannenstiel laparotomy, a technique widely used in gynecological procedures due to its adequate access and preservation of the aesthetic appearance of the abdominal area, along with a surgical hysteroscopy.

During the surgical procedure, a myomectomy was performed, which involved the remarkable removal of 121 uterine fibroids. These fibroids were subserosal and intramural, ranging in size from 0.5 cm to 10 cm in diameter within the uterine cavity. The peritoneal cavity was carefully examined and hemostasis was achieved to prevent hemorrhagic complications. The uterus, fallopian tubes, ovaries, and adnexa were preserved, with the intention of maintaining the patient's reproductive function. During the hysteroscopy, diffuse endometrial polyposis was removed using a resectoscope.

The surgery was successful, and the patient showed good progress without any complications. During the hospital follow-up, she remained afebrile and showed no signs of alarm. Since the surgery, she has been regularly monitored with annual hysteroscopies. In the hysteroscopies conducted in 2022 and 2023, extensive fibrous synechia, also known as uterine adhesions, was revealed. This condition occurs when scar tissue forms within the uterus as a result of the removal of the 121 fibroids. It can affect the uterus's ability to perform its normal functions, such as menstruation, embryo implantation, and pregnancy development. However, this condition can often be treated with the removal of the adhesions through hysteroscopy.

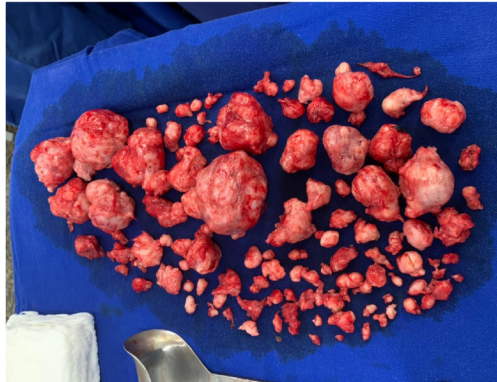


Figure 1 - 121 fibroids extracted during surgery

## DISCUSSION

The described case presents a patient diagnosed with uterine fibroids after complaints of abnormal uterine bleeding and persistent pelvic pain. Imaging exams confirmed the presence of multiple fibroids of varying sizes and locations, highlighting the complexity of the clinical picture. Uterine fibroids originate from the smooth muscle cells of the myometrium and exhibit significant hormonal dependence, with overexpression of estrogen and progesterone receptors. These hormones stimulate tumor growth, which explains the predominance of this condition during the reproductive phase.<sup>1,2</sup> The variability in clinical presentation is striking: some women remain asymptomatic, while others, like the case in question, present severe symptoms that impact their quality of life.

The patient's diagnosis was confirmed by transvaginal ultrasound, which is highly sensitive in detecting and characterizing fibroids. The therapeutic decision included a surgical approach due to persistent symptoms and the impact on the patient's quality of life, with myomectomy being chosen to preserve the patient's reproductive potential. The surgical procedure was performed via Pfannenstiel laparotomy, a technique that provides adequate access to the uterus with aesthetic benefits for healing. In this way, 121 fibroids were removed, and surgical hysteroscopy was also performed, allowing the removal of diffuse endometrial polyposis using a resectoscope, complementing the approach and optimizing uterine conditions for future pregnancies.<sup>3</sup>

The preservation of the uterus, fallopian tubes, and ovaries was a crucial aspect of the management, considering the patient's desire to maintain fertility. Although myomectomy significantly improves symptoms and preserves reproductive function, it also requires rigorous follow-up due to the risk of fibroid recurrence and complications in future pregnancies, such as uterine rupture and hemorrhages.<sup>4</sup>

## CONCLUSION

This case highlights the importance of an individualized therapeutic approach in the management of uterine myomatosis. The success of the surgery reflects the effectiveness of a multidisciplinary team

and modern techniques in treating complex gynecological conditions. Furthermore, it emphasizes the significance of options like myomectomy for patients who wish to preserve fertility, while also stressing the need for rigorous follow-up to ensure favorable reproductive and clinical outcomes. While conservative therapies are valid in less severe cases, well-planned surgical interventions remain essential in more challenging clinical scenarios, such as the one reported. The patient continues with regular follow-up to monitor for potential recurrences, considering the benign nature of the disease but its propensity for recurrence.

## REFERENCES

- 1- Kashani BN, Centini G, Morelli SS, Weiss G, Petraglia F. Role of medical management for uterine leiomyomas. *Best Pract Res Clin Obstet Gynaecol.* 2016 Jul;34:85-103.
- 2- Donnez J, Donnez O, Dolmans MM. With the advent of selective progesterone receptor modulators, what is the place of myoma surgery in current practice? *Fertil Steril.* 2014 Sep;102(3):640-8.
- 3- Donnez J, Dolmans MM. Uterine fibroid management: from the present to the future. *Hum Reprod Update.* 2016 Nov;22(6):665-86.
- 4- Zhao R, Wang X, Zou L, Li G, Chen Y, Li C, Zhang W. Adverse obstetric outcomes in pregnant women with uterine fibroids in china: a multicenter survey involving 112,403 deliveries. *PLoS One.* 2017 Nov 14;12(11):e0187821.

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