

Treatment of a giant uterine fibroid during pregnancy: a case report

Tratamento de um mioma gigante na gravidez: caso clínico

Margarida Pires Cordoeiro¹, Márcia Vieira Coimbra¹, Joana Aidos², Nuno Pereira³, António Pipa³

Centro Hospitalar Tondela-Viseu

Abstract

Uterine fibroids are the most common benign uterine tumors, affecting 2-10% of pregnant women. In pregnancy, they can manifest as abdominal pain, uterine bleeding or as a rapidly growing mass. Their association with obstetric complications depends mostly on the location, with subserous myomas being practically harmless, except if they're associated with rapid growth or are of considerable size. This clinical case reports a pregnant woman that presented with a rapidly growing myoma associated with abdominal pain, whose diagnosis was made in the first trimester and who underwent myomectomy at 16 weeks' gestation.

Keywords: Myomectomy; Pregnancy; Obstetric complications; Uterine fibroid.

Resumo

Os miomas uterinos são os tumores uterinos benignos mais comuns, afetando 2-10% das mulheres grávidas. Na gravidez, podem se manifestar com dor abdominal, hemorragia uterina ou como uma massa de crescimento rápido. A sua associação a complicações obstétricas é dependente sobretudo da localização do mioma, sendo que os miomas subserosos, são praticamente inócuos, exceto se associados a crescimento rápido ou de dimensões consideráveis. Reporta-se um caso clínico de uma grávida com um mioma de crescimento rápido e associado a dor abdominal, cujo diagnóstico foi realizado no primeiro trimestre, em que se procedeu à miomectomia às 16 semanas de gestação.

Palavras-chave: Miomectomia; Gravidez; Complicações obstétricas; Miomas uterinos.

INTRODUCTION

Uterine fibroids or uterine myomas are the most common benign tumors in the female genital tract¹. They arise from smooth muscle cells², and affect 20-50% of women of reproductive age¹.

The prevalence in pregnant women is around 2%³. Most are asymptomatic⁴, but uterine myomas can manifest with uterine bleeding or recurrent pelvic pain, especially if it's a large fibroid¹. In addition, depending on their location, uterine myomas can be associated

with obstetric complications such as spontaneous abortions, preterm delivery or fetal malpresentation⁵.

We present a case of a pregnant woman diagnosed with a large pelvic mass in a first trimester ultrasound

1. Interna de Especialidade Obstetrícia e Ginecologia, Centro Hospitalar Tondela-Viseu.

2. Assistente Hospitalar de Obstetrícia e Ginecologia, Centro Hospitalar Tondela-Viseu.

3. Assistente Graduado de Obstetrícia e Ginecologia, Centro Hospitalar Tondela-Viseu.

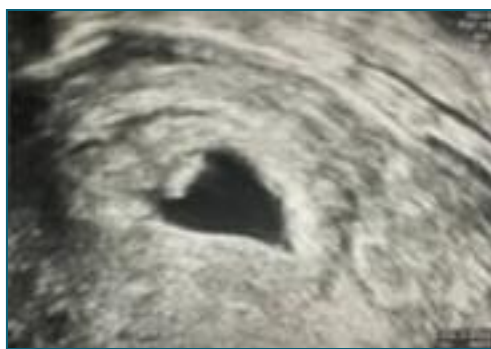


FIGURE 1. Intrauterine pregnancy with an embryo.



FIGURE 2. Ultrasound image of the fibroid at diagnosis.

scan, who underwent surgical treatment during the early second trimester.

CASE REPORT

A 28-year-old, healthy, nulliparous woman with a history of two prior miscarriages came to our emergency department with recurrent pelvic pain in the context of 5 weeks of amenorrhea and a positive pregnancy test.

During observation, there was no abnormal discharge or blood in the vagina, on abdominal examination, there was a palpable pelvic mass up to the umbilical line, bimanual palpation revealed that it was a mobile mass with a hard-elastic consistency.

A transvaginal ultrasound was carried out, which showed an intrauterine evolutive pregnancy, with an embryo compatible with 6 weeks of gestation (Figure 1). Exploration with abdominal ultrasound probe revealed a large suprauterine solid mass measuring

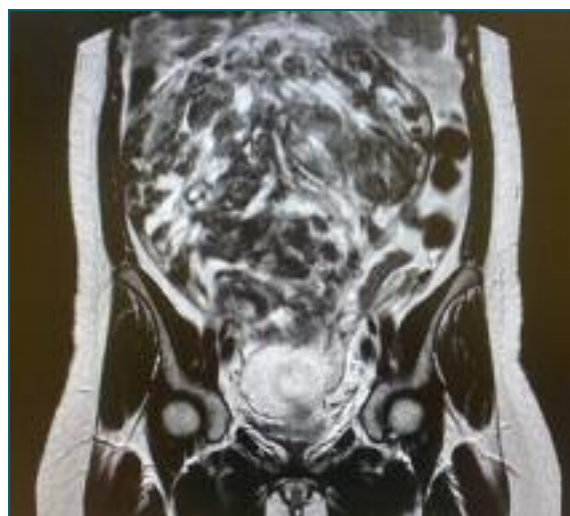


FIGURE 3. MRI images of the fibroid at 10 weeks of pregnancy.

163x83x186mm, avascular and with a positive sliding sign (Figure 2).

The pregnant woman was then referred for monitoring and differential study of the pelvic mass. Tumor markers were negative, and a magnetic resonance imaging (MRI) scan was performed at 10 weeks of pregnancy, which documented a large oval formation measuring 253x200x100mm, with a pedicle in the anterior wall of the uterine body, compatible with a subserosal fibroid (Figure 3).

Besides the large fibroid, the first trimester combined screening revealed a normal fetus and low risk for aneuploidy.

Given the rapid growth behavior and recurrent symptoms, a laparotomic myomectomy was offered to the patient, which, with her consent, was performed at 16 weeks of gestation. The myomectomy was uneventful, with excision of a mass 260 mm in diameter, compatible with a subserous myoma, type 7 according to the FIGO classification (6) (Figure 4 and Figure 5). Fetal vitality was confirmed in the post-operative period and the histological study confirmed the suspected diagnosis.

At 40 weeks of pregnancy, the pregnant woman returned to our emergency department due to premature rupture of the membranes and an uneventful caesarean section was performed, with the birth of a baby girl weighing 2600 g and an Apgar score of 9/10/10.



FIGURE 4. Fibroid excision by laparotomy.



FIGURE 5. Surgical specimen.

DISCUSSION

Uterine fibroids are the most common benign uterine tumors in women^{1,4,5}. Their prevalence increases with age, and given that maternal age at pregnancy is also increasing, it is thought that the prevalence of uterine fibroids is arising in this group of women³.

There are numerous reported obstetric complications associated with uterine fibroids^{2,5}, depending on their location, size and relation with the placenta³. Subserous fibroids are not found in the uterine body and therefore generally do not affect pregnancy outcomes³, but they are often associated with rapid growth, especially if the mass is >5 cm³, and with recurrent pelvic pain^{1,2}.

In the case of the latter, the first-line treatment should be conservative management^{2,5}, given the obstetric complications that can arise from surgical treatment, such as preterm delivery, fetal death, and the risks inherent to general anesthesia⁵. On the other

hand, during pregnancy, pain control can be challenging⁴.

Furthermore, in the case of large pelvic masses, it is important to rule out malignancy, especially in growing masses diagnosed at the first trimester^{3,5}. Given that ultrasound and MRI cannot conclusively differentiate it from its malignant variant, sarcoma⁵, it is important to make a histological diagnosis, which can only be achieved by surgical removal of the mass.

Therefore, surgical treatment should not be carried out routinely⁵, and should only be considered when symptoms are refractory to oral analgesia², when there is a large uterine mass (>5 cm) or when there is a growing or suspicious mass.

REFERENCES

1. Fuchs A, Dulská A, Sikora J, Czech I, Skrzypulec-Plinta V, Drosdzol-Cop A. Symptomatic uterine fibroids in pregnancy – wait or operate? Own experience. *Ginekol Pol.* 2019;90(6):320-4.
2. Spyropoulou K, Kosmas I, Tsakiridis I, Mamopoulos A, Kalogiannidis I, Athanasiadis A, et al. Myomectomy during pregnancy: A systematic review. *Eur J Obstet Gynecol Reprod Biol.* 2020;254:15-24.
3. Milazzo GN, Catalano A, Badia V, Mallozzi M, Caserta D. Myoma and myomectomy: Poor evidence concern in pregnancy. *J Obstet Gynaecol Res.* 2017;43(12):1789-804.
4. Babunashvili EL, Son DY, Buyanova SN, Schukina NA, Popov AA, Chechneva MA, et al. Outcomes of Laparotomic Myomectomy during Pregnancy for Symptomatic Uterine Fibroids: A Prospective Cohort Study. *J Clin Med.* 2023;12(19).
5. Cavaliere AF, Vidiri A, Gueli Alletti S, Fagotti A, La Milia MC, Perossini S, et al. Surgical Treatment of “Large Uterine Masses” in Pregnancy: A Single-Center Experience. *Int J Environ Res Public Health.* 2021;18(22).
6. Munro MG, Critchley HO, Fraser IS, Group FMDW. The FIGO classification of causes of abnormal uterine bleeding in the reproductive years. *Fertil Steril.* 2011;95(7):2204-8, 8 e1-3.

AUTHOR'S CONTRIBUTION

Margarida Cordoeiro: conceptualization; investigation; writing – original draft. Márcia Coimbra: methodology; writing – review & editing. Joana Aidos: writing – review & editing; visualization; resources. Nuno Pereira: Supervision; writing – review & editing; validation. António Pipa: Visualization; validation.

CONFLICTS OF INTEREST

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria, educational grants, participation in speakers' bureaus, membership, employment, consultancies, stock ownership, or other equity interest, and expert testimony or patent-licensing

arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

INFORMED CONSENT

The patient gave informed consent for publication.

ETHICS COMMITTEE

This project was approved by the hospital's ethics committee (number: 02/29/09/2023).

CORRESPONDENCE TO:

Margarida Pires Cordoeiro

E-mail: margarida.cordoeiro@gmail.com

<https://orcid.org/0009-0002-1690-6627>

RECEIVED: 06/02/2024

ACCEPTED: 03/06/2024