

# Successful Laparotomic myomectomy during pregnancy: a case report

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**Abstract:** Although leiomyomas usually remain asymptomatic during pregnancy, they may complicate its course. The management of uterine fibroids during pregnancy is usually expectant and surgical removal is generally delayed until after delivery. In this case study, we present a large, symptomatic uterine fibroid diagnosed during pregnancy which was successfully managed by an antepartum laparotomic myomectomy. **Case presentation:** A 30-year-old primigravida woman presented in the obstetric-gynecology emergency room with, amenorrhea of 18-week duration and severe epigastric discomfort which increased in intensity in the week before her consultation. The fundal height was greater than gestational age. A sonographic diagnosis of 3 uterine fibroids in pregnancy was made. Laparotomy revealed 3 uterine fibroids co-existing with an intrauterine pregnancy; the largest was a pedunculated subserosal fibroid on the anterior part of the fundus measuring 17x9cm and the second was also a pedunculated subserosal fibroid at the posterior aspect of the fundus measuring 5x4cm the third was an intramural fibroid measuring 6x4cm on the anterior aspect of the uterus. Myomectomy was successfully performed on the two pedunculated myomas without opening of the uterine cavity. The subsequent antenatal period was uneventful with a spontaneous vaginal delivery of a male baby at 38 weeks. The last intra mural fibroid was later excised at 8 months post-partum. **Conclusion:** This report supports other studies and case series that have demonstrated the safety of myomectomy during pregnancy in selected circumstances.

Keywords: uterine fibroids; myomas; myomectomy; pregnancy; maternal–fetal outcomes

## Introduction

The incidence of pregnant women with uterine fibroids is increasing. As they are reactive to hormonal stimuli, with predominance in the sub-Saharan African women [7]. In some cases, uterine fibroids tend to grow during pregnancy and potentially generate symptoms with different levels of severity depending on their position, causing maternal–fetal complications. The prevalence of leiomyoma during pregnancy is reported as 2% [1]. During pregnancy, uterine leiomyoma are usually asymptomatic but may be occasionally complicated in the first trimester by bleeding, pain and miscarriage, in the second and third trimesters by red degeneration and an increased frequency of spontaneous abortion, preterm labor, premature rupture of fetal membranes, antepartum hemorrhage, malpresentations, obstructed labour, cesarean section and postpartum hemorrhage [8]. The management of uterine leiomyoma during pregnancy is largely expectant and its surgical removal is generally delayed until after delivery. Indications for myomectomy during pregnancy include severe abdominal pain due to torsion of subserous pedunculated myomas or red degeneration not responding to medical treatment, and an increase in myoma size causing abdominal discomfort. It has been reported that if symptoms persist after 72 hours of therapy, then surgical intervention must be considered [9]. Because of the increased vascularisation of the uterus during pregnancy, women are at increased risk of bleeding and postoperative morbidity during myomectomy [12-13]. Some reports have shown that myomectomy during cesarean delivery can be safe [10-11]. Controversy persists among reports of myomectomy being performed during pregnancy [1], with some case series having reported the safety of antepartum myomectomy in carefully selected patients [1-14-15].

## Case Presentation

### History, examination and management

A 30-year-old primigravida married woman presented in the obstetric-gynecology emergency room at the UTH Hassan II fez on the 20<sup>th</sup> October 2023 with, amenorrhea of 18 weeks duration and severe epigastric discomfort which increased in intensity in the week before her consultation. She had no history of infertility, trauma or drug ingestion.

The patient was ill-looking and clinically, The pulse rate was 90 beats per minute and the blood pressure was 120/80 mmHg. The respiratory rate was 24 cycles per minute temperature of 37.5°C . chest and breast examination were normal, abdominal examination revealed a mass occupying the lower abdomen it was very tender. The abdomen was distended with fundal height greater than gestational age at 24cm, bowel sounds were positive, fetal heart was positive, no palpable lymph nodes. On vaginal examination we could not differentiate the mass from the pregnant uterus because of the pain; there was no leg edema or varicose veins. No vaginal bleeding was presented.



*Figure 1: shows fundal height of uterus of patient at 18weeks gestation*

Abdominal sonography showed an intra-uterine viable singleton fetus of 18 weeks gestation. It also showed 3 uterine fibroids the first being a pedunculated subserosal fibroid on the anterior part of the fundus measuring 17cm covering the entire screen and the second was also a pedunculated subserosal fibroid measuring 5cm in diameter and the third being an intramural fibroid of approximately 6cm in diameter.

Blood tests showed a hemoglobin of 11.4g/dl, and normal electrolytes, urea and creatinine levels. The woman's blood group was 0 Rhesus positive. General urine test showed moderate infection. Because of the severity of the symptoms and the sonographic findings, surgery was proposed and discussed with the patient. Laparotomy was performed with a midline approach, under general anesthesia with endotracheal intubation. Operative findings included, normal liver, spleen, kidneys, diaphragm, ovaries and fallopian tubes. The uterus was soft and the size was adequate for 18 weeks of gestation. Fetal movements were visible. 3 uterine fibroids co-existing with an intrauterine pregnancy; the largest was a pedunculated subserosal fibroid on the anterior part of the fundus measuring 17x9cm and the second was also a pedunculated subserosal fibroid measuring 5x4cm the third was an intramural fibroid which was not excised. Myomectomy was successfully performed without opening of the uterine cavity.



[Figure 1](#)

*Uterus with massive subserosal fibroid.* The photograph is JPEG format. It shows a subserous fibroid measuring 17cm in diameter and situated at the right posterior aspect of the uterus.



*Figure 2: shows two excised subserosal fibroids the largest measuring 17 x 9cm in diameter while smaller one measured 5x3cm*

The two subserosal fibroids were removed and the myoma bed was quickly closed with 2-0 polyglactin suture and hemostasis was easily achieved. The estimated blood loss was 500 ml and 1 unit of whole blood was transfused intra-operatively. The largest tumor weighed 2.8 kg both were sent for histology.

Nifedipine was administered to prevent uterine contractions and the woman had an uneventful post-operative follow up. The post-operative hemoglobin was 11g/dl and the woman was discharged from the hospital 5 days after the operation. The histology report showed sections of interlacing bundles of smooth muscles with areas of hyaline degeneration with no evidence of malignancy. Repeat sonography during antenatal care visits showed a normally growing fetus with the last intramural fibroid showing no signs of red degeneration. It was later excised 8 months post-partum. The remainder of the antenatal period was uneventful. The woman went into spontaneous labor at 38 weeks gestation and delivered vaginally a female baby weighing 3.1 kg with Apgar scores of 10 and 10 at one and five minutes, respectively. Two days post-partum the maternal hemoglobin was 11g/dl and mother and baby were discharged from the hospital. The 6 weeks post-natal visit was unremarkable.

## **Discussion**

The decision to remove the fibroids were justified by their sizes and the patient's symptoms. The benefit was the relief of symptoms and reduced fetal complications. their subserosal location may have contributed to easy enucleation and closure of the myoma bed. The decision not to excise the intra mural fibroid was made as it showed no signs of red degeneration and would have proved a high risk of opening of the uterine cavity. Hypercoagulability in pregnancy might have contributed to the ease in achieving hemostasis. The ease with which the fibroid was removed and the minimal measures used to obtain hemostasis contributed to the safety of the procedure. This case illustrates that myomectomy during pregnancy can be safely performed in carefully selected cases.

Antepartum myomectomy associated with reversal of fetal complications such as oligohydramnios, fetal postural deformity and intrauterine growth restriction has been reported [16].

Sonography may be useful in evaluating the size, number, position, location, relationship to the placenta and echogenic structure [17]

## **Conclusion**

Although most cases of uterine fibroids in pregnancy can be managed conservatively like in the case of the intramural fibroid our patient presented, antepartum myomectomy may be necessary in selected cases such as in cases of symptomatic uterine fibroids not responding to conservative management.

## **Competing interests**

The author(s) declare that they have no competing interest.

## **Authors' contributions**

JH performed the surgery and conceived of the study. ENN did the literature search. Both authors collaborated in the preparation of the manuscript, read and approved the final manuscript.

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