



Successful Myomectomy of a Giant Uterine Fibroid in a Nulliparous Woman with Preservation of Fertility: A Case Report

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Abstract

Background: Uterine fibroids (leiomyomas) are the most common benign tumors of the female reproductive system [1]. Giant fibroids are rare and pose significant surgical and fertility challenges, particularly in nulliparous women.

Case Presentation: We report a case of a nulliparous woman with an 8-year history of infertility who presented with progressive abdominal distension. Imaging revealed a large pedunculated subserosal fibroid measuring 26 × 20 × 16 cm along with multiple smaller fibroids. The patient underwent successful open myomectomy with removal of a 5.16 kg fibroid, along with excision of smaller fibroids and ovarian cystectomy. Fertility was preserved.

Conclusion: Even in cases of massive fibroids, uterus-conserving surgery is feasible with careful surgical planning. Myomectomy remains a valuable option in women desiring future fertility.

Keywords: Uterine Fibroids; Fertility

Introduction

Uterine fibroids (leiomyomas) are benign smooth muscle tumors affecting approximately 20–40% of women during reproductive age [2]. While most fibroids remain small and asymptomatic, large or “giant” fibroids can lead to significant morbidity including abdominal distension, pressure symptoms, and infertility [3].

Management depends on size, number, location, and reproductive wishes. In women desiring fertility, myomectomy is preferred over hysterectomy [4]. However, giant fibroids present technical challenges due to increased vascularity, distorted anatomy, and risk of hemorrhage [5].

We present a rare case of a giant uterine fibroid successfully managed with myomectomy in a nulliparous woman.

Case Presentation

A 34-year-old nulliparous woman, married for 8 years and attempting conception, presented with progressive abdominal swelling over 4 years. Her menstrual cycles were regular.

She was previously diagnosed with uterine fibroids at a hospital in Salalah. MRI of the abdomen and pelvis revealed a large pedunculated subserosal fibroid measuring 26 × 20 × 16 cm, along with multiple smaller intramural fibroids. The pedicle was reported to be thick and highly vascular.

Her medical history was significant for rheumatoid arthritis, for which she was on methotrexate, sulfasalazine, and low-dose prednisolone. There was a positive family history of rheumatoid arthritis.

On examination, a large abdominopelvic mass equivalent to a term pregnancy, extending up to the xiphoid process, was noted.

Investigations:

- Hemoglobin: 10.8 g/dL
- Platelet count: 252,000/mm³
- Renal and liver function tests: Normal
- Blood group: O positive
- Coagulation profile: Normal

Three units of blood were cross-matched preoperatively.

Surgical management

The patient underwent laparotomy via a vertical midline incision.

Intraoperative findings included:

- A massive pedunculated fibroid occupying the entire abdominal cavity
- Pedicle approximately 8 cm in diameter with large blood vessels
- Attachment at the fundo-posterior uterine wall

A Foley catheter (size 12) was used as a tourniquet around the pedicle to reduce blood loss. The pedicle was clamped with five hemostatic clamps, ligated, and transected. The uterine cavity was not opened during the myomectomy. The excised fibroid weighed 5.16 kg. Estimated blood loss was approximately 500 cc.

Additionally:

- Three smaller intramural/subserosal fibroids were removed
- Left ovarian cyst (5 × 6 cm) → cystectomy performed
- Left paraovarian cyst excised

All specimens were sent for histopathology.

Histopathology

- Giant mass and smaller nodules: Benign leiomyoma
- Left ovarian cyst: Benign cystadenoma and hemorrhagic corpus luteum cyst

Postoperative course:

Blood transfusion: 3 units (1 intraoperative, 2 postoperative).

Postoperative hemoglobin dropped to 7.4 g/dL and improved to 10.2 g/dL after blood transfusion and intravenous iron therapy.

The postoperative course was uneventful. The drain was removed on postoperative day 4 and the patient was discharged on day 5.

Follow-up at 1 and 3 weeks showed a well-healed surgical wound with no complications.

The patient was advised to attempt conception after 6 months.

Discussion

Giant uterine fibroids (>10 cm or >1 kg) are rare in modern practice due to earlier diagnosis [6]. This case is notable because of:

- Extremely large size (5.16 kg)
- Nulliparous status with infertility
- Successful fertility-preserving surgery

The major challenge in such cases is intraoperative hemorrhage due to increased vascularity. The use of a Foley catheter as a tourniquet around the pedicle was an effective hemostatic strategy.

Literature suggests that careful surgical planning, availability of blood products, and experienced surgical technique are essential in managing such cases [7].

Alternative management options for large fibroids include hysterectomy and uterine artery embolization; however, these were not suitable for our patient as she desired future fertility. She was counseled preoperatively regarding the possibility of hysterectomy in the event of uncontrolled hemorrhage, and informed consent was obtained.

Despite the size of the fibroid, successful myomectomy without hysterectomy was achieved, preserving the patient’s reproductive potential.

Conclusion

This case highlights that even giant uterine fibroids can be safely managed with myomectomy in selected patients, and fertility preservation is achievable. Careful surgical planning, adequate blood preparation, and appropriate surgical techniques are essential for optimal outcomes.

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Appendix

The Tumor Size and Procedure



