



ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

FROM HIDDEN BULK TO NEW LIFE: SUCCESSFUL CONCEPTION AFTER OPEN MYOMECTOMY FOR LARGE INTRAMURAL FIBROIDS : A CASE REPORT

KEY WORDS: Intramural Fibroid, Leiomyoma, Myomectomy, Infertility, Fertility Preservation, Pregnancy After Myomectomy.

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ABSTRACT

Introduction: Intramural uterine fibroids are common benign smooth muscle tumors that may present with menstrual disturbances, pelvic pain, and infertility. Fertility-preserving surgical management is often indicated in women desiring future pregnancy. **Case Presentation:** A 31-year-old nulligravida woman presented with primary infertility of two years duration, chronic lower abdominal pain, and irregular menstrual cycles. Ultrasonography demonstrated a bulky uterus with multiple intramural fibroids, the largest measuring 7.2×5.2 cm, along with a fundal subserosal fibroid measuring 6×5.6 cm. She underwent fertility-preserving open myomectomy. Intraoperatively, a 12×8 cm fundal intramural fibroid extending posteriorly and a 6.5×5.5 cm anterior wall intramural fibroid were identified and removed along with additional smaller fibroids. Histopathology confirmed benign leiomyoma. The postoperative course was uneventful. Follow-up: At six months after surgery, the patient conceived spontaneously. Early ultrasonography confirmed a viable intrauterine pregnancy, and the pregnancy remained ongoing without evidence of uterine scar complications at the time of reporting. **Conclusion:** Open myomectomy for large symptomatic intramural fibroids can result in favorable reproductive outcomes, including successful spontaneous conception following adequate postoperative healing.

INTRODUCTION

Uterine fibroids (leiomyomas) are benign smooth muscle tumors of the uterus and represent the most common pelvic neoplasm in women of reproductive age. Their growth is largely hormone dependent and influenced by estrogen and progesterone. Depending on their location, fibroids are classified as submucosal, intramural, or subserosal. Intramural fibroids may distort uterine architecture, impair implantation, alter endometrial receptivity, and contribute to infertility or adverse reproductive outcomes.

Management depends on the patient's age, symptomatology, fibroid size and location, and fertility desires. In women wishing to preserve fertility, myomectomy remains the preferred surgical option. We report a case of successful spontaneous conception following open myomectomy for large multiple intramural fibroids.

Case Presentation

A 31-year-old married nulligravida woman presented with primary infertility of two years duration, chronic dragging lower abdominal pain, and irregular menstrual cycles. She also reported dysmenorrhea and a sensation of pelvic heaviness. There was no history of postcoital bleeding, intermenstrual bleeding, abnormal vaginal discharge, fever, or weight loss.

Menstrual History

- Cycle length: 35–60 days (irregular)
- Duration of flow: 4–5 days
- Flow: Moderate
- Dysmenorrhea: Present

General examination revealed mild pallor. Abdominal examination showed a bulky, firm, non-tender pelvic mass corresponding to approximately 12–14 weeks uterine size. Speculum and bimanual examination demonstrated a bulky uterus with restricted mobility and no adnexal tenderness.

Investigations: Baseline hematological and biochemical investigations were within normal limits except for mild anemia (hemoglobin 10.4 g/dL).

Transabdominal ultrasonography revealed:

- Bulky uterus measuring $12.6 \times 10 \times 7.5$ cm
- Multiple intramural fibroids involving the anterior and

posterior myometrium

- Largest intramural fibroid measuring 7.2×5.2 cm
- Fundal subserosal fibroid measuring 6×5.6 cm
- Endometrial thickness 5.8 mm

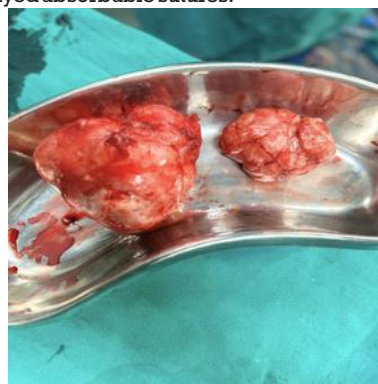
Preoperative MRI was not performed due to financial constraints.

Management: After counseling regarding fertility-preserving options, the patient was planned for open abdominal myomectomy.

Intraoperative findings:

- Bulky uterus
- Anterior wall intramural fibroid: 6.5×5.5 cm
- Fundal intramural fibroid extending posteriorly: 12×8 cm
- Additional smaller intramural fibroids
- Bilateral ovaries bulky but otherwise normal
- Estimated blood loss: 600 mL

A total of five fibroids were enucleated. The uterine cavity was not entered. Multilayer myometrial closure was performed using delayed absorbable sutures.



Histopathology confirmed benign leiomyoma without atypia.

Follow-up and Fertility Outcome

- At 3 months, ultrasonography showed a well-healed uterine scar with no significant residual fibroid.
- At 6 months, the patient conceived spontaneously.
- Early pregnancy ultrasound confirmed a single live intrauterine gestation corresponding to 7 weeks.

- The pregnancy progressed normally during the first and second trimesters under regular antenatal surveillance.
- At the time of manuscript preparation, the patient had an ongoing viable pregnancy at 24 weeks with no evidence of uterine scar complications.

DISCUSSION

Intramural fibroids can impair fertility through several mechanisms, including distortion of uterine anatomy, altered uterine contractility, reduced endometrial receptivity, and impaired sperm or embryo transport. The likelihood of reproductive dysfunction increases with larger fibroid size and multiple lesions.

In the present case, the patient had multiple large intramural fibroids, including a dominant posteriorly extending lesion measuring 12 × 8 cm intraoperatively. Surgical intervention was chosen because of persistent symptoms and primary infertility.

Preoperative MRI may improve fibroid mapping and assist operative planning, particularly in women with multiple or large myomas. Temporary preoperative treatment with GnRH agonists may also reduce fibroid size and intraoperative blood loss in selected patients.

The most noteworthy aspect of this case is the successful spontaneous conception following myomectomy. This supports the role of fertility-preserving surgery in appropriately selected women with large intramural fibroids. Several studies have reported improved reproductive outcomes after removal of cavity-distorting or large intramural fibroids, although the magnitude of benefit varies among patient populations.

CONCLUSION

- Large intramural fibroids may present with pelvic pain, menstrual irregularities, and infertility.
- Ultrasound remains the first-line imaging modality, while MRI provides superior preoperative mapping when available.
- Open myomectomy is an effective fertility-preserving option for women with symptomatic large intramural fibroids.
- Careful multilayer uterine closure and appropriate postoperative counseling regarding timing of conception are essential.
- This case demonstrates that successful spontaneous conception can occur after open myomectomy, highlighting its value in reproductive-aged women desiring future fertility.

Learning Points

- Large intramural fibroids should be evaluated for their potential impact on fertility.
- Myomectomy can provide both symptom relief and improved reproductive potential.
- The uterine cavity should be preserved whenever feasible during fertility-preserving surgery.
- Structured postoperative follow-up is important to assess uterine healing and counsel regarding future pregnancy.

Patient Consent

Written informed consent was obtained from the patient for publication of this case report and associated clinical information. Patient identity has been adequately protected.

Conflict of Interest

The authors declare no conflict of interest.

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