Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/20737
DOI URL: http://dx.doi.org/10.21474/IJAR01/20737

RESEARCH ARTICLE

CASE REPORT
DEFYING TRADITION: SAFE AND SUCCESSFUL MYOMECTOMY DURING CAESAREAN SECTION FOR INCISION-DISTORTING FIBROIDS

Adel Ahmidat[1], Maha Ahmed[2], Sana Haroon[2] and Sarwat Navid[2]

1. Consultant, Department of obstetrics &Gynaecology, Hatta Hospital, Dubai Academic Health Corporation, United Arab Emirates.
2. Specialist, Department of obstetrics & Gynaecology, Hatta Hospital, Dubai Academic Health Corporation, United Arab Emirates.

Manuscript Info

Manuscript History
Received: 15 Febuary 2025
Final Accepted: 18 March 2025
Published:April 2025

Key words:-
Caesarean myomectomy; caesarean secti on; complications; pregnancy; uterine fibroids; uterine myoma; leiomyoma

Abstract

Uterine fibroids are common in women of reproductive age, and their management during pregnancy poses significant clinical challenges. Caesarean myomectomy, once discouraged due to the risk of haemorrhage, is increasingly being performed in selected cases with favourable outcomes—particularly when fibroids obstruct delivery or interfere with uterine closure.We report the case of a 38-year-old woman with a prior caesarean section and multiple uterine fibroids, including a large intramural fibroid at the uterine incision site. During elective caesarean delivery, myomectomy was successfully performed to enable proper closure of the uterine wound. This case underscores that, when indicated and executed with surgical precision and adequate haemostatic control, caesarean myomectomy can be both safe and beneficial—offering a single definitive procedure and avoiding the need for future surgeries.

"© 2025 by the Author(s). Published by IJAR under CC BY 4.0. Unrestricted use allowed with credit to the author."

Introduction:-

Uterine leiomyomas, or fibroids, are the most common benign tumors of the female reproductive tract, particularly among women of reproductive age. Although their exact incidence during pregnancy is difficult to determine, studies suggest a prevalence ranging from 2% to 4% (1). This incidence is expected to rise due to trends such as delayed childbearing, increased use of assisted reproductive technologies, hormonal therapies, and contraceptives. Additionally, endocrinological disorders and the global increase in caesarean section rates contribute to the growing clinical burden of fibroids in pregnancy (2).

The management of fibroids during caesarean section remains a topic of considerable debate. Traditionally, caesarean myomectomy has been avoided due to concerns about excessive uterine vascularity, leading to significant

Corresponding Author:- Adel Ahmidat
Address:- Consultant, Department of obstetrics &Gynaecology, Hatta Hospital, Dubai Academic Health Corporation, United Arab Emirates

intraoperative haemorrhage, increased need for blood transfusion, prolonged operative time, and heightened risk of emergency obstetric hysterectomy and maternal morbidity. However, with advancements in anaesthetic techniques, improved access to blood products, selective devascularization methods, and the availability of multidisciplinary teams, the paradigm is shifting. Increasingly, obstetricians are opting to perform myomectomy during caesarean section to avoid future surgeries, reduce overall patient morbidity, and decrease healthcare costs (3).

Myomectomy may become necessary in specific intraoperative scenarios—particularly when fibroids obstruct fetal delivery, distort the uterine incision, are pedunculated or anteriorly located, or prevent proper closure of the uterine wound. In such cases, immediate removal is often the safest course of action.

This case report presents a patient in whom a caesarean myomectomy was performed due to fibroids distorting the uterine incision, rendering closure impossible without removal. This case underscores the importance of experienced obstetricians being present during high-risk caesarean deliveries complicated by fibroids. It also highlights the need for properly equipped facilities and preparedness for potential life-saving interventions, particularly in centers managing complex obstetric cases.

Case Presentation:

We report the case of a 38-year-old woman, gravida 3 para 1+1, with a previous caesarean section performed for failed induction due to severe pre-eclampsia. During her current pregnancy, an intramural fibroid measuring 6.0 × 4.6 × 4.6 cm was identified at 14 weeks' gestation, located in the left anterolateral lower uterine segment. Serial antenatal ultrasounds noted a mild increase in fibroid size. The patient also had iron deficiency anaemia with low ferritin, which was corrected during pregnancy through targeted therapy.

Given the location and potential interference with uterine incision and closure, a planned elective caesarean section at 38 weeks and 5 days was scheduled, with contingency for concurrent caesarean myomectomy depending on intraoperative findings.

Preoperative Planning:

The fibroid was not palpable abdominally. Laboratory investigations showed haemoglobin of 12 g/dL, normal platelets, normal coagulation profile, and B positive blood group. Blood and blood products were cross-matched and made available in advance. Detailed counselling was provided regarding potential risks including haemorrhage, transfusion, prolonged operative time, and possible hysterectomy. Informed written consent was obtained for caesarean delivery with or without myomectomy.

Intraoperative Findings and Procedure:

The uterus was term with a well-formed lower segment. Dense adhesions were found between the bladder, anterior abdominal wall, and lower uterine segment. An upper transverse uterine incision was made. A 6 cm intramural fibroid was encountered at the edge of the incision, along with two smaller fibroids (approximately 1 cm). Delivery of the baby was achieved with some difficulty but without complications. Due to their obstruction of uterine closure, the primary fibroid and two smaller ones were removed. The uterus was closed in three layers with secured haemostasis. Uterine atony was managed using oxytocin, intramuscular carboprost, and intravenous tranexamic acid (1 g). A drain was placed and Bakri balloon inserted vaginally. Estimated blood loss was 1500 mL.

Postoperative Course:

The surgery lasted approximately 2.5 hours. Postoperative haemoglobin dropped to 7.2 g/dL, and the patient received two units of packed red blood cells. The drain (250 mL) and Bakri balloon (350 mL) were removed on postoperative day two. The patient made a smooth recovery and was discharged home on postoperative day four. At 1-week follow-up, she was clinically stable, haemoglobin was 10.6 g/dL, and the wound was healing well. Histopathology confirmed benign leiomyomas. Future delivery was advised at 35–36 weeks by a senior obstetrician, and contraceptive counselling was provided.

Uterine fibroid 6*6 cm removed to allow closure of the caesarean uterine incision

Gelatinous material inside the 6*6 cm uterine fibroid

Discussion:

The role of myomectomy during caesarean section remains a subject of ongoing debate and clinical controversy. Despite its increasing relevance in modern obstetrics, there are currently no universally accepted guidelines or standardized recommendations governing its practice. This procedural ambiguity leaves decision-making largely at the discretion of the attending obstetrician, often influenced by individual surgical expertise, institutional capacity, and intraoperative findings.

Historically, caesarean myomectomy has been approached with caution due to concerns about severe intraoperative haemorrhage, extended surgical time, and postoperative complications, including hematomas, sepsis, thromboembolic events, and adhesion formation. Moreover, the risk of uterine scarring may potentially compromise future fertility and increase the likelihood of uterine rupture in subsequent pregnancies (5). These concerns have led many obstetricians to defer fibroid removal to a later interval procedure.

However, recent evidence supports a more nuanced and proactive approach. In select cases—particularly when fibroids obstruct the uterine incision, complicate fetal delivery, or prevent proper closure of the uterus—myomectomy becomes not only justifiable but necessary to prevent further morbidity.

A recent retrospective study conducted at Ningbo Women's and Children's Hospital (2017–2022) evaluated the safety and efficacy of endometrial and serosal myomectomy during caesarean delivery for intramural fibroids larger than 8 cm. The study concluded that caesarean myomectomy, when performed by experienced surgeons in appropriate clinical contexts, is both feasible and safe. Notably, endometrial myomectomy was associated with

reduced operative time and blood loss, while serosal myomectomy performed before uterine closure also shortened surgical duration—highlighting the importance of technique and timing in improving outcomes (6).

Similarly, a case reported from Apollo Hospitals in Ahmedabad involved a 38-year-old gravida 3 at 37 weeks with a history of adverse obstetric outcomes and multiple fibroids. She underwent high-risk caesarean section with removal of four large fibroids and one smaller one. Although one posterior wall intramural fibroid (6 × 5 cm) was left in situ due to technical difficulty, the patient tolerated the procedure well with no significant haemorrhage or complications. This case reinforces the notion that with modern anaesthetic techniques, improved surgical methods, and readily available blood products, caesarean myomectomy can be performed safely in carefully selected patients under skilled hands (7).

In our case, the decision to proceed with myomectomy was made intraoperatively when the fibroid was found obstructing the uterine incision closure. The surgery was meticulously executed by a senior obstetrician, resulting in minimal complications, effective hemostasis, and an uneventful recovery. The patient benefited from a single surgical event, avoiding future procedures and their associated risks.

Conclusion:

Caesarean myomectomy, though traditionally approached with caution, is not absolutely contraindicated—especially when performed by an experienced surgeon in well-selected cases. While the procedure has been documented for over a century, its role in modern obstetric practice remains nuanced and situational (8). Myomectomy during caesarean delivery should be considered when fibroids obstruct fetal delivery, distort the uterine anatomy, lie within the incision site preventing closure, or exhibit signs of bleeding or degeneration. With appropriate surgical expertise, institutional preparedness, and individualized decision-making, caesarean myomectomy can be a safe and effective option that spares patients future surgical interventions and complications.

References:

1. Garg P, Bansal R. Cesarean myomectomy: a case report and review of the literature. J Med Case Rep. 2021 Apr 24;15(1):193. doi: 10.1186/s13256-021-02785-7. PMID: 33892803; PMCID: PMC8066887.

2. Rosati P, Exacoustòs C, Mancuso S. Longitudinal evaluation of uterine myoma growth during pregnancy. A sonographic study. J Ultrasound Med. 1992 Oct;11(10):511-5.doi:10.7863/jum.1992.11.10.511. PMID: 1404579.

3. Kathpalia SK, Arora D, Vasudeva S, Singh S. Myomectomy at caesarean section: a safe option. Med J Armed Forces India. 2016;72:S161–3.

4. Rahimli, ocakoglu, s, ustunyurt, e, 2023, should, we, perform, myomectomy, during, cesarean, section, tips, tricks, gynecology, pelvic, medicine, 6, doi, 10.21037, gpm, 22, 21

5. Ruhliada, N. N. (2024). Myomectomies during cesarean section and outcomes. https://doi.org/10.1101/2024.05.10.24307049

6. Shi, C., Chen, J. & Chen, A. Clinical outcome analysis of intramural myoma greater than 8 cm in diameter removed during caesarean section: a retrospective study. BMC Women's Health 23, 60 (2023). https://doi.org/10.1186/s12905-023-02210-9

7. Nahar, K., & Nahar, N. (2020). Caesarean myomectomy in a case of bad obstetric history and multiple fibroids: a case report. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 9(6), 2622–2627. https://doi.org/10.18203/2320-1770.ijrcog20202362

8. Sparić R, Malvasi A, Kadija S, Babović I, Nejković L, Tinelli A. Cesarean myomectomy trends and controversies: an appraisal. J Matern Fetal Neonatal Med. 2017 May;30(9):1114-1123. doi: 10.1080/14767058.2016.1205024. Epub 2016 Jul 17. PMID: 27328626.