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Case Report

A case report of caesarean myomectomy in a term pregnant woman with fibroid complicating pregnancy: in a tertiary care centre

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ABSTRACT

Uterine leiomyomas are the benign tumors arising from the muscle cells of the uterus. These are the most common tumors observed in reproductive age group and is seen in around 2% pregnant women. The effect of fibroids on the pregnancy varies according to the number, size and their location. Most of the patients are asymptomatic. Recent literature suggests myomectomy during pregnancy and caesarean section is safe in well selected cases with experienced obstetrician in a tertiary care center.

Keywords: Uterine leiomyomas, Benign tumors, Caesarean myomectomy

INTRODUCTION

Uterine fibromyomas have an adverse effect on fertility, leading to high morbidity and medical expenses. Due to the increasing maternal age, there is a significant incidence in pregnant women. As a result, it is more likely that you will encounter pregnant patients who have myomas, and you will also need to address the related issues.

The majority of leiomyomas are asymptomatic throughout pregnancy, however they are at elevated risk for spontaneous abortion, preterm labour, early rupture of the membranes, antepartum haemorrhage, abruptio placenta, malpresentation, and a high rate of caesarean birth. When red degeneration occurs during the second trimester of pregnancy, a pedunculated fibroid may twist. Cervical dystocia or obstructed labour are possible outcomes if it is found in the lower uterine segment or cervix. Additionally, it may result in retained placenta, uterine subinvolution, and postpartum haemorrhage in the immediate postpartum period.^{1,2}

Despite advancements in medical and nonsurgical myoma therapy, caesarean myomectomy has always been a

contentious topic. Haemostasis can be attained easily, and pedunculated myomas are simple to remove. This approach has the benefit of not requiring a second operation. Furthermore, caesarean myomectomy induces puerperal involution and greatly lowers fibroid-related issues that may arise later in life, such as menorrhagia, anaemia brought on by severe bleeding, and pain.

Up until recently, it was frequently advised to put off the myomectomy and have it done after the next anticipated pregnancy. The most frequent justification for delaying myomectomy has been to avoid an unnecessary hysterectomy caused by uncontrolled haemorrhage, which increases post-operative morbidity and lengthened hospital stays.

Here we authors report an interesting case of elderly pregnant women with twin pregnancy with multiple fibroids where myomectomy was done after caesarean section.

CASE REPORT

A 37-year-old G₃P₁L₁A₁ with 20 weeks of pregnancy with twin gestation was presented at Narayana Medical College

and Hospital, Nellore on 28 October 2021. Ultra sound showing twin-A in scan showed blighted ovum and scan showing anterior myometrial fibroid measuring 7.9×5.8 cm, with alive twin-B. The patient was particularly worried because she was expecting twins and wanted to know how they were doing. She sought advice regarding the twin-A issue and decided to carry the pregnancy out while taking the twin-B into account.

Obstetric history included: G₃P₁L₁A₁, 1st baby is a baby girl delivery through normal vaginal delivery and is of 9 years of age, and 2nd- spontaneous abortion was done at 2 months of amenorrhea.

Menstrual history included 4-5/28 days, regular, moderate flow, painless.

With increasing gestational age, the size of the fibroid increased from the anomaly scan showing 7.8×5.9 cm to 7.5×7.5×9 cm at the time of growth scan on the anterior myometrial wall. She was admitted at 38 weeks at the Narayana Hospital and planned for elective caesarean section in view of elderly gravida.

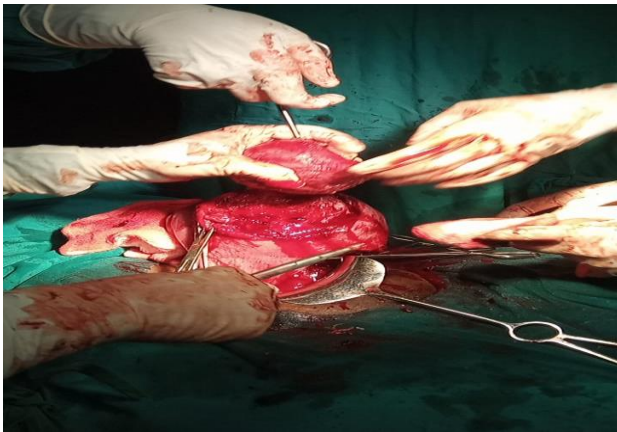


Figure 1: Intra operative removal of anterior myometrial fibroid.



Figure 2: Intra operative removal of posterior myometrial fibroid.

On examination, it was found that the patient was normal built weight 84 kgs, pulse - 82/min, BP - 110/70 mmHg, temperature - 98 F, CVS - S1 S2 normal, RS - RR-20/min, and chest clear.

On per abdomen examination - uterus unduly enlarged, multiple fibroids felt, cephalic presentation, FHS present 130/ min, and uterus relaxed.

On bimanual examination - os admits tip of finger, vertex above brim, and pelvis adequate.

Other investigations on 04.03.22 - Hb-10.1 gm%, white cell count - 10,600/cu mm, DC-N 72%, L 18 % M 6 %, E 4%, platelets-2,04,000/cu mm, BT-2 min, CT-6 min, PT-11.7 sec (T), 11.5 sec (C), INR 1, S. creatinine-0.7, blood group-B positive, HIV, HBsAg and VDRL-non reactive.

A clinical diagnosis of G₃P₁L₁A₁ with 38 weeks pregnancy with multiple fibroids was made. She underwent high risk lower segment caesarean section followed by myomectomy and under GA on 07.03.22. A healthy male child, weight 3.25 kg delivered at 9:49 AM.

Intra-operative findings

Multiple fibroids and an enlarged uterus were present. There were two sub-serosal fibroids measuring 16×10 and 10×10 cm; the largest one was discovered on the anterior wall.

Myomectomy was carried out by making an incision above the fibroids' capsules, which was followed by enucleation and the removal of the fibroids.

Myoma bed was sutured with vicryl-no. 1. Proper hemostasis was achieved. Abdomen was closed in layers.

Skin closed with subcuticular stitches with monocryl no 3-0. Operative time was 120 minutes. An oxytocin infusion was started after delivery of baby and was continued for 8 hours.

Broad spectrum antibiotics and analgesics were given in post-operative period. Post-operative course in the hospital was uneventful. Catheter was removed on 2nd post-operative days; CBC was done on 1st post-operative days; HB was 9.7 gm%. She did not require blood transfusion, the CBC was again repeated at 3rd post operative day, Hb was 8.7gm% she didn't get any blood transfusion but she took iron sucrose infusion. Patient was discharged in stable hemodynamic condition on day 5th, 12th March 2022.

Leiomyomata with degenerative alterations, infarct, and calcification were visible upon histopathological investigation. Following a 6-week check-up, the patient was in good health and had no concerns. Caesarean scar was in good shape. A uterine ultrasound revealed a healthy one.

Her infant was healthy, developing normally, and appropriately consuming breast milk.

DISCUSSION

Because many women are delaying childbearing until their late thirties, which is the time for the greatest risk of the myoma growth, uterine myomas are being noticed during pregnancy more frequently compared. Additionally, the use of ultrasonography has enhanced the diagnostic ability to find small myomas, which has improved our understanding of myomas in pregnancy.

Caesarean myomectomy has always been prohibited because of concerns about uncontrollable bleeding, postoperative morbidity, and the potential for hysterectomy. When carried out on carefully chosen patients, it spares the patient the hassle of a second hospitalisation. Additionally, the uterus is biologically more equipped to control haemorrhage in the immediate postpartum phase than at any other time in a woman's life.³ The decision to do a caesarean myomectomy in this instance seems logical given that enucleating the fibroids was technically simpler due to the increased capsule looseness. Oxytocin also promoted uterine muscular contraction to stop the haemorrhage.

A successful caesarean myomectomy was performed by Ehigiegba et al on 25 patients; no one needed a caesarean hysterectomy.⁴ In this study, 58 fibroids and 34 caesarean myomectomy procedures were completed on patients. The mean haemoglobin before surgery was 11.8 ± 0.7 g/dl, while the mean haemoglobin after surgery was 10.9 ± 0.8 g/dl. A blood transfusion was required in two individuals, however neither patient required a caesarean hysterectomy. The patient did not need a blood transfusion in this instance, and there were no complications during or after the procedure. The preoperative haemoglobin in this case was similarly 12.7 g/dl, and the postoperative haemoglobin was 11.9 g/dl.

Kaymak et al compared 80 patients with myomas who underwent only caesarean section with 40 patients who had received myomectomy during caesarean section.⁵

The average size of the excised fibroids was 8.1 cm. The frequency of blood transfusions, postoperative fever, or haemorrhage incidence between the two groups did not differ significantly from one another.

The results of Song, et al assessments of the safety of myomectomy conducted during caesarean section showed that haemoglobin levels decreased more during caesarean, myomectomy than during caesarean section by 0.30 g/dL, but the difference was not statistically significant. 15 compared to the caesarean section group, the caesarean myomectomy group's surgical time was longer by 4.94 minutes, but the difference was not statistically significant. It was indicated that doing a myomectomy during a caesarean section was possible, but that certain surgical

techniques, such as tourniquet, uterine artery occlusion, and uterine artery ligation, needed to be taken care of. However, aside from the use of oxytocin, the majority of the research that were included of the meta-analysis did not call for any specific methodology.

In 2015, Topcu et al discovered that haemorrhage was not significantly impacted by the size of leiomyomas since the mean haemoglobin level. When patients were categorised according to the size of the leiomyoma, blood transfusion changes and frequency were comparable in those who underwent caesarean sections with or without myomectomy.⁶

The findings of Kwon's research also suggested that there were no variations between preoperative and postoperative haemoglobin alterations, operative time, postoperative fever, and uterine artery embolization was not used during the operation and no case required peripartum hysterectomy in pregnant women with big myomas (>5 cm). These differences were observed between those of myoma 5 cm and those of myoma >5 cm.⁷

Examining the relationship between fibroids and placenta previa, it was concluded that having fibroids increased the likelihood of placenta previa in subsequent pregnancies a 2-fold.⁸⁻¹⁰

Conflicting information has been reported on the connection between postpartum haemorrhage and fibroids, however aggregated evidence suggested otherwise. Because fibroids may alter the uterine architecture and interfere with myometrial contractions, causing uterine atony and postpartum haemorrhage, their prevalence with 2.5% was substantially higher in women with myomas compared to control patients with 1.4%.^{9,11,12}

Furthermore, according to data from one survey, changes in fibroids size ranged from 89% shrinkage to 138% increase, with a median of 9% change in volume in a 6-year-old. Additionally, fibroids are capable of experiencing growth spurts over a month period.^{13,14} In this case also the fibroids increased in size as the pregnancy continued, hence large fibroids were removed.

Few studies have demonstrated that myomectomy problems can result from leaving fibroids untreated. Hasan et al. reported a significant amount of hysterectomy due to postpartum bleeding.¹⁵ According to Davis et al, postpartum sepsis is occurring more frequently.¹⁶

Although myomectomy should not be performed during pregnancy, it is an effective procedure when performed during caesarean section.¹⁷

Recognizing hemostasis successes, for a caesarean myomectomy to be successful, it must be performed with the right skills, competence, blood components are available, and a skilled anaesthetist.

CONCLUSION

When performed by a skilled obstetrician at a tertiary care facility using a very rapid procedure, myomectomy during caesarean birth may be a reasonable and safe option managing the volume of intraoperative bleeding. The choice to do a caesarean myomectomy should take into account the intraoperative assessment of fibroids. Lower uterine segment-obstructing fibroids that are accessible and sub serosal fibroids can be safely removed. Therefore, skilled obstetricians should strive to preserve the uterus whenever it is possible. The patient benefits as well since she is freed of worry and displays satisfaction and a sense of wellness upon learning that a future surgical treatment has been reduced.

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