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CASE REPORT

# A Case of Caesarean Delivery with Large Lower Uterine Segment Fibroid in Patient of Eclampsia: A Rare Case

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## ABSTRACT

***Background:*** Large uterine fibroids during pregnancy are associated with increased maternal and fetal complications. It can be a cause for arrest of labor and the need for cesarean delivery. Prior to the late 2000s, the reported prevalence ranged from 0.1 to 3.9%, with more recent data suggesting rates closer to 11%.[1,2] The majority of these fibroids do not significantly change during pregnancy and frequently remain asymptomatic but if the fibroids grow in isthmic localization, vaginal delivery can be very difficult or impossible and many complications might also occur.

***Objectives:*** Uterine fibroids greater than 5 cm in diameter are more likely to grow during pregnancy and cause obstetrical complications. In this case,we report a case of a large 10 cm lower uterine fibroid presented to our hospital with obstructed labour and antepartum eclampsia resulting in cesarean delivery. Myomectomy was also done simultaneously.

***Methods:*** A 38 year-old gravida 3, para 2, pregnant woman was referred to our obstetrics emergency at SNMMCH, Dhanbad at 37 week gestation with diagnosis of antepartum eclampsia. Her pregnancy was further complicated by a presence of enlarged lower uterine segment fibroid with largest measuring 10.3 cm.

***Conclusion:*** Uterine fibroids are associated with an increased risk of caesarean delivery. The main factors for deciding the mode of delivery depends on the location, size and number of fibroids. Fibroids which are located in lower uterine segment present as case of obstructed labor and in these case caesarean delivery is preferred. Also caesarean myomectomy has been increasingly done now a days in order to avoid risk of reoperation in future.

## KEYWORDS

Caesarean section • Uterine fibroid • Eclampsia • Labour • Myomectomy

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## INTRODUCTION

Uterine leiomyomata during pregnancy are becoming increasingly common. As the average age of first-time mothers in addition to higher birth orders continues to increase, so does the prevalence of fibroids in pregnancy which is known to increase with age 3,4. This increase in prevalence will disproportionately affect women of black race given the prevalence of fibroids in this population is two-to threefold higher than women of white race.[4] uterine fibroid of larger diameter are associated with both maternal and fetal complications during pregnancy.Studies have suggested complications including increased rates of cesarean delivery, fetal malposition, preterm delivery, placenta previa and postpartum hemorrhage among others.[5] Data surrounding the relative risk of many of these complications are mixed, however, making management decisions for these patients challenging, especially regarding mode of delivery.

The obstetric complications differed according to location size and number of fibroids. Studies have suggested that fibroids which are more than 3 cm result in an increased rate of malpresentation, preterm labor, placental abruption, pelvic pain, and cesarean delivery.[5] There were increase in number of deliveries via caesarean section in cases with uterine fibroid which was due to associated fetal malpresentation, large fibroids,multiple fibroids,submucosal fibroids and due to presence of lower uterine segment fibroid.[2,6] Additionally, multiple studies have demonstrated an increased risk of cesarean section prior to the onset of labor in patients with large uterine fibroids, even after controlling for potential confounders including maternal age, nulliparity, fetal presentation, and placenta previa. In cases where fibroid are present in lower uterine segment the vaginal delivery is further complicated due to obstructive features. Also planning a incision during caesarean section will be difficult as compared to a fundal fibroid. So the location of fibroid plays a significant role in deciding the mode of delivery.

In the recent literature, the location of fibroid in lower uterine segment and the number of fibroids may be associated with ineffective uterine contraction during labor.

## CASE

A 38 year old woman, G3 P2 L2 at 37 week of gestation,referred from Sadar Jamtara, presented to the obstetrics emergency at SNMMCH Dhanbad, with history of multiple episodes of seizures since 12 hrs and raised blood pressure.

Her pregnancy was further complicated by presence of large uterine fibroid in the lower uterine segment measuring 10.3 cm in the largest dimension on her 25 week scan. The fibroid size was seen to be increasing throughout his pregnancy as a 21-week ultrasound scan showed 8.8 cm in its largest dimension.

She had a history of two, uncomplicated vaginal delivery 12 year and 3 year back.The ANC checkup was inadequate with only 2 visits. She had two ultrasonography scans one was 25 week 4 days scan which showed uterine fibroid in the lower uterine segment measuring 10.3 cm* 9.9 cm . The fibroid size was seen to be increasing throughout the pregnancy as a 21-week scan showed 8.8 cm * 7.2 cm fibroid. Along with this significant finding on usg was right sided mild hydroureteronephrosis and splenomegaly.

The patient did not give past history suggestive of any other chronic illnesses. She was non smoker,non alcoholic and there was no history of any teratogenic drug use. No history of hypertension was present in her family.

On admission, there was ongoing seizures, she was semiconscious, her mouth was full of secretions.Tongue bite was present. She had pallor and pedal edema .Her pulse rate was 112/min and blood pressure was 144/104 mm Hg, Her oxygen saturation was 93% on room air. Bilateral crepitations were present in the chest. On CVS examination s1 s2 were heard.

Patient was stabilized, iv antihypertensive (labetalol) given and Pritchard regimen of Magnesium sulphate was started. All necessary investigations were sent.

On abdominal examination, contour was found abnormal, uterus size was more than the period of gestation, mild contractions was present, presentation was cephalic and fetal heart sound was 160 bpm. On per vaginal examination the cervix was hanging and the fetal head was palpable. There was scalp edema present and the head was high up. There was a fibroid which was present posterior to the vaginal vault.

Her lab reports came which showed Hemoglobin was 8 gm/dl.Platelet was 1lac 60 thousand per microlitre. Urine routine showed albumin. Her LFT was deranged AST-52U/L, ALT-42U/L, ALP-145.9U/L, Serum uric acid-9.12mg/dl, Creatinine-0.92mg/dl, urea-23.53mg/dl.

Since the patient had multiple episodes of seizures in last 12 hrs and there was no descent of fetal head and features of obstructed labour were present, due to the presence of lower uterine fibroid, decision for the termination of pregnancy by caesarean section was taken.

## CAESAREAN SECTION

In dorsal supine position midline incision was given under spinal anaesthesia.On entering the peritoneum there was a 12cm large lower uterine segment fibroid along with a 5 cm fibroid on the right anterior side of the uterus.

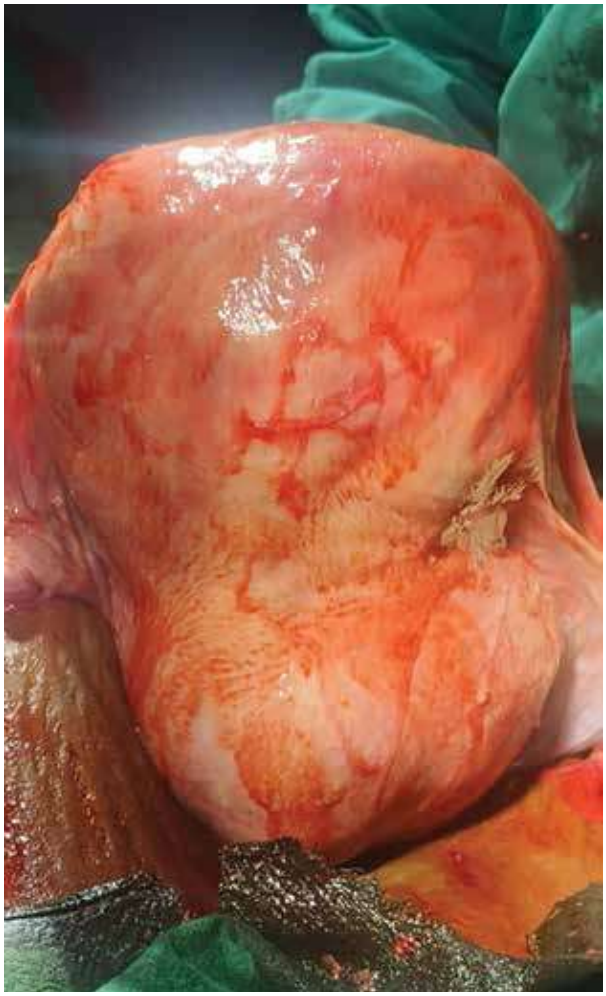

**Fig. 1:** Position of fibroid in lower uterine segment

A lower segment high transverse incision was given and delivery of the fetal head in the vertex position, with the assistance of a hand in the vagina to elevate the fetal head from below was successful as the fetal head was mildly impacted beneath the lower segment fibroid (fig. 1). The placenta was removed by CCT and a submucosal fibroid was present at the placental attachment site. So it was removed and the pedicle was ligated. Mild postpartum hemorrhage was managed by uterotonics. Also Myomectomy of large lower uterine and one small anterior fibroid was done and hemostasis was secured (fig. 2 & 3).

**Fig. 2:** Myomectomy during caesarean section

**Fig. 3:** Gross Specimen of large lower uterine segment fibroid and small anterior fibroid

The Apgar score was 6 and 9 at 1 min and 5 min. Total two unit PRBC was transfused as postoperative hemoglobin dropped to 6gm/dl. Patient was later put on Antihypertensive (Tab Depin R 10 mg bd), diuretics and Magnesium sulfate (pritchard regimen) was continued till 24 hour post delivery. The patient tolerated surgery well control of blood pressure and treatment of anaemia was done. After 10th postoperative day patient was discharged on tab depin R, tab iron and calcium and advise for regular monitoring of blood pressure was given.

## DISCUSSION

The diagnosis of uterine fibroids is made prenatally on physical exam or ultrasound; however, detection rates are limited. The prevalence of uterine fibroids during pregnancy is 1%–10% and is associated with a 10%–40% complication rate during pregnancy.[1]

Fibroids that are larger than 5 cm in diameter are more likely to grow during pregnancy and can lead to an increased risk of miscarriage, preterm labor, placenta abruption, malpresentation, labor dystocia, cesarean delivery, and postpartum hemorrhage.[1,2]

Most women with uterine fibroids will deliver vaginally however, uterine fibroids are a well-known risk factor for cesarean delivery. Women with fibroids are 3.7 times more likely to need cesarean delivery due to fetal malpresentation and labor dystocia. Women with uterine fibroids during pregnancy are 2.5 times more likely to have fetal malpresentation and 2 times more likely to have labor dystocia. In most cases, uterine fibroids during pregnancy should not be considered a contraindication to trial of labor.[2]

Most authors agree that myomectomy at the time of cesarean section should be avoided, given the increased risk of severe hemorrhage and peripartum hysterectomy. New literature suggests that myomectomy during cesarean delivery could be considered in selected patients with careful consideration of several factors.[1-3] In this case report we performed myomectomy at the time of the cesarean section.

A study conducted by Kaymak *et al.*[7] where results of 40 pregnant women who underwent myomectomy during C/S and 80 pregnant women with myomas who underwent cesarean delivery alone were compared. It was observed in the study that myomectomy during cesarean section is not always a hazardous procedure, and it can be performed without significant complications by experienced obstetricians. Gürsoy *et al.*[8] reported similar results in their study which showed myomectomy during C/S allows a patient to avoid a second operation. Another retrospective study of tertiary care institutions, in which the database was analyzed from January 2008 to December 2017, demonstrates that myomectomy cesarean section is a safe and feasible procedure in experienced hands. In the study it was concluded that this procedure avoids reoperation in selected patients.[9]

The guidelines for caesarean myomectomy indicated that pregnant women with fibroids represent a group of patients at high risk of peripartum and postpartum hemorrhage. American College of Obstetricians and Gynecologists (ACOG) guideline particularly emphasizes that pregnant women with fibroids are at increased risk for postpartum hemorrhage.[10] According to National Institute for Health and Care Excellence (NICE) recommendations, pregnant women with fibroids should have an individual assessment when planning the place of birth[11] Preparation for CS myomectomy operation should be done accurately according to guidelines and recommendations. We can summarize the associations' recommendations for C/S myomectomy as "in the right place, at the right time".

## CONCLUSION

Studies have reported that uterine fibroids are associated with an increased risk of cesarean delivery, especially when the fibroids are located in the lower uterine segment due to obstruction and also inefficient uterine contraction. Also myomectomy at the time of caesarean section has benefit that reoperation in future can be avoided. Also recent literature suggest it is a safe and reasonable to do myomectomy during caesarean section by experienced obstetrician.

***Conflict of interest:*** None

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***Ethical declaration:*** Informed consent was taken by all the participants in the study.

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