

## Case Report

### Transverse Fundal Incision Due to Huge Lower Segment Fibroid at Caesarean Section: A Case Report

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## Abstract

We present the case of a 29-year-old primigravida at a gestational age of 37 weeks, who had a transverse fundal uterine incision done due to a huge anterior wall leiomyoma and transverse lie. The rarity of this type of uterine incision and the size of the uterine myoma prompted this case report. She had a safe delivery of the foetus through the transverse fundal incision with a birth weight of 2.8kg, estimated blood loss of 600mls and APGAR score of 7 at 1 minute and 9 at 5 minutes. The patient had an uneventful post-operative period and was discharged home with her baby on the fourth postoperative day. In conclusion, the use of transverse fundal uterine incision is rare but may be a life-saving procedure in patients with multiple huge uterine fibroids in order to reduce the morbidity associated with caesarean myomectomy.

**Keywords:** Transverse fundal uterine incision, huge lower segment fibroid, caesarean section.

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## Introduction

Uterine fibroid is the most common benign tumour in women of reproductive age group.<sup>1</sup> In most cases, it is asymptomatic and many women are diagnosed with uterine fibroids either clinically or ultrasonography.<sup>1</sup>

The prevalence of myoma in pregnancy is reported to be between 2% to 5%.<sup>2</sup> The incidence of myoma increases with advancing maternal age.<sup>2</sup> In addition, the incidence during pregnancy ranges from 1.6 to 10.7%.<sup>3</sup> Fibroids outside pregnancy cause increased menstrual flow, pelvic pain, degenerative changes and infertility (though not a direct cause).<sup>1,2</sup> Fibroids during pregnancy are associated with adverse obstetric outcomes such as miscarriages in the first trimester, foetal malpresentation, placental previa, placenta abruption, intrauterine growth restriction, increased risk of abdominal delivery, obstructed labour and postpartum haemorrhage.<sup>3</sup> Large myomas measuring >5 cm in diameter are associated with a higher risk of preterm delivery, premature rupture of membrane, postpartum bleeding and blood transfusion.<sup>3</sup>

Most cases of uterine fibroid may present with no obvious clinical symptoms, and many women are diagnosed with uterine fibroids using obstetric ultrasound in pregnancy.<sup>4</sup> When compared with smaller fibroids, pregnancy co-existing with large uterine fibroid is significantly more prone to obstetric complications, often requiring caesarean section for delivery of the foetus.<sup>2</sup> It is still controversial whether it is necessary to remove the fibroids or not during caesarean section.<sup>4</sup> However, many obstetricians still agree that uterine blood flow is rich during pregnancy, thus enucleation of fibroids at this time is likely to cause uncontrollable bleeding.<sup>4</sup> Except for fibroids in the lower uterine segment or pedunculated uterine fibroids, enucleation of fibroids at caesarean section is still not recommended.<sup>4</sup>

## Case Presentation

Patient is Y.A, a booked 29-year-old primigravida whose last normal menstrual period was on the 14<sup>th</sup> of March 2022 and her expected date of delivery was on the 21<sup>st</sup> of December, 2022. She booked the index pregnancy at a

gestational age of 24 weeks and 2 days in our facility. She had earlier booked in a primary health centre, where she had 2 doses of Intramuscular tetanus toxoid at gestational ages of 15 weeks and 19 weeks and 2 doses of intermittent preventive therapy for malaria at gestational ages of 18 and 22 weeks respectively. She had an obstetric ultrasound scan done prior to booking in our facility at 21 weeks and 4 days which revealed singleton intrauterine gestation with multiple degenerating uterine fibroids largest measuring 9cmx 11cm in dimensions. She was admitted twice in the index pregnancy on account of features suggestive of red degeneration in pregnancy. She had serial growth scans and the last ultrasound scan done at a gestational age of 36weeks and 3 days revealed a singleton live foetus in a transverse lie with an estimated foetal weight of 3.0kg, amniotic fluid index of 7.0cm as well as an anterior lower segment uterine fibroid measuring 12.8 cm x 8.0cm.

She was scheduled for elective caesarean section on account of the transverse lie. However, she presented one day prior to the scheduled caesarean section with clinical features of severe pre-eclampsia. She subsequently had an emergency caesarean section. At surgery, she initially had a Pfannenstiel incision to assess the anterior abdominal cavity. However, on evaluation of the uterus, a huge uterine fibroid was noted at the lower uterine segment measuring about 24cm x 25cm obviating the ability to deliver the foetus through the lower uterine segment, a midline incision was made on the anterior abdominal wall to gain wider access.

A transverse fundal incision was made on the fibroid-free area of the uterus to deliver the baby by the breech. The baby was a live female neonate with a birth weight of 2.8kg, Apgar scores were 7 at 1 minute and 9 at 5 minutes, amniotic fluid was clear and released under pressure following uterine incision. The uterus was closed in two layers, the peritoneum, rectus sheath, subcutaneous tissue and skin were closed in layers and haemostasis was secured. The procedure was well tolerated and the estimated blood loss was 600mls.



Figure 1: Huge lower Segment Fibroid (Red Arrow) and Uterus (Blue Arrow)

Postoperatively, the baby was nursed by the mother's side, and lactation was established on the second postoperative day. She was adequately debriefed on the findings at surgery and counselled about the need for possible abdominal myomectomy after puerperium and before her next pregnancy. She was also counselled on

contraception. Mother and baby remained stable and were discharged on the 4<sup>th</sup> post-operative day.

At follow-up in the post-natal clinic 6 weeks after delivery, her wound had healed satisfactorily and her baby had achieved appropriate growth for age. She was reminded about the importance of abdominal myomectomy before her next pregnancy and referred to the family planning clinic for contraception while her baby was referred to the infant welfare clinic.

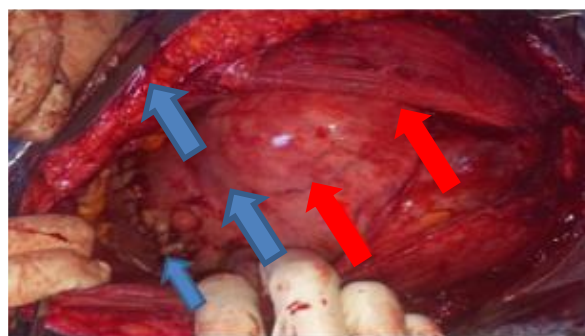


Figure 2: Transverse Fundal incision (Repaired) and Giant lower Segment Fibroid (Red Arrow)



Figure 3: Second day Post Surgery

## Discussion

Uterine fibroids are the commonest benign tumour co-existing with pregnancy and an increasingly greater number of women are at risk for surgical intervention in pregnancy due to the associated risk of dysfunctional labour, abnormal lie and fetopelvic disproportion caused by this tumour.<sup>5,6</sup> This incidence has been attributed to the increasing number of women who choose to postpone childbearing to a later age for various reasons.<sup>5</sup>

Uterine fibroids are associated with a high risk of spontaneous miscarriage, preterm labour, placental abruption, premature rupture of membranes (PROM), foetal malpresentation, intrauterine growth restriction, labour dystocia, difficult caesarean delivery, postpartum haemorrhage and hysterectomy.<sup>5,7-9</sup>

In the index case, the possibility of accessing the lower uterine segment was either by avoiding the plane of the fibroid or performing a caesarean myomectomy. However, the finding of huge fibroids at the lower uterine segment with the foetus displaced to the fundus necessitated the midline incision to gain access to the fundus where the transverse fundal incision was made to deliver the foetus.

The commonest uterine incision at caesarean section is the transverse lower segment incision. The classical incision is now rarely done due to the risk of uterine rupture in subsequent pregnancies. Although, it still finds use in certain high-risk caesarean sections.<sup>10,11</sup> To the best of our knowledge, no literature was noted to have documented the previous use of a transverse fundal incision which was the only feasible technique to safely deliver the foetus. A transverse fundal incision may be a consideration in patients with a huge lower-segment Uterine fibroid that makes delivery of the foetus difficult.

### Implication for Clinical Practice

Although rare, opting for a transverse fundal incision during a caesarean section for a huge lower-segment fibroid offers some advantages as it minimizes risks linked to the huge fibroid, such as bleeding and difficulty delivery of the baby. A midline anterior abdominal wall incision facilitates better surgical access to the uterine fundus and further reduces the potential for injury to surrounding structures. Although the implication of this type of incision on subsequent delivery is yet to be determined, it offers a viable option for delivering this category of patients.

### Acknowledgement

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