



## Cesarean myomectomy

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**OBJECTIVE(S) :** To study the safety and feasibility of performing myomectomy during cesarean section.

**METHOD(S) :** Nine cases of cesarean myomectomy are presented. Our technique comprised of a lower segment transverse incision. Myomectomy was done after delivering the baby. This was followed by suturing with adequate hemostasis.

**RESULTS :** No significant difference was found in relation to mean time taken for surgery, amount of blood loss, post-operative pain and mean duration of hospital stay.

**CONCLUSION(S) :** Myomectomy with cesarean section, in selected cases with proper indication is safe and feasible.

**Key words:** myomectomy, cesarean section, hemorrhage

### Introduction

Uterine leiomyoma is found in approximately 2% of pregnant women <sup>1</sup>. Traditionally obstetricians are trained to avoid myomectomy during cesarean section due to severe hemorrhage often necessitating hysterectomy. The blood loss is usually severe as the size and blood supply of the myoma are increased in pregnancy. In most cases it is wise to defer myomectomy until the uterus has completely involuted, preferably for 6 months. Pedunculated fibroids, which may be easily removed, are an exception <sup>2</sup>.

On the other hand uterus in the postpartum phase is better adapted physiologically to control hemorrhage. As contractions and retractions of muscle fibers occur, the blood vessels are closed. Also, the onset of vascular changes for clot formation in placental bed, helps in stopping the bleeding. Hence, myomectomy during cesarean will have the above advantages. But the policy of doing a myomectomy during cesarean to avoid second surgery may not always prove to be wise. Myomectomy as a separate operation during cesarean increases the hemorrhage by about 10% <sup>3</sup>. However many a times while doing a cesarean section, one is faced with a

myoma in the lower uterine segment. It is recommended that a lower uterine transverse incision be made through the myoma. We report here nine such cases where myomectomy was done at the time of cesarean section.

### Methods

We did myomectomy during cesarean section in nine women who were diagnosed to have fibroids by ultrasound, in the antenatal period. Accurate evaluation of location, number, size and position of fibroids was done. They were counseled, and consent was taken for the possibility of postpartum hemorrhage and hysterectomy should the need for myomectomy arise.

The first myomectomy was an incidental one. Difficulty was encountered while suturing the cut ends of the fibroid. So, the myoma was enucleated, myoma bed sutured, and uterine incision closed in two layers with 'O' vicryl. Adequate hemostasis was achieved without much difficulty and the postoperative period was uneventful. So, a deliberate policy was evolved to proceed with myomectomy during cesarean section if the myoma was large and presented in the line of incision.

Oxytocin infusion was started after delivery of the baby and continued for 12-24 hours thereafter.

Broad spectrum antibiotics and analgesics were given in the postoperative period. Notes were made of the time taken for

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surgery, weight of myomas removed, blood loss (estimated by hemoglobin fall), need for blood replacement, intra- or post-operative complications, and duration of hospital stay. In the follow up visit 6 weeks after cesarean delivery, involution of the uterus was noted and ultrasound was done to find any remaining fibroids.

**Results**

During the study period from May 2003 to July 2005 nine cases of cesarean myomectomy were done.

Age of the nine women ranged from 24 to 36 years with a mean of 30.4 years. Five out of nine women were more than 30 years of age. Eight women had a solitary myoma whereas one woman had multiple submucous myomas, one of which came in the incision line and was enucleated. Seven women had an intramural myoma on the anterior uterine wall on the incision line and one had a large submucous myoma on the posterior wall; it came jutting out of the incision after delivery of the baby (Figure 1) . The largest myoma weighed 350 g and the smallest 68 g. Average weight was 175 g. None of the patients had any septic complications.



**Figure 1.** Myoma jutting out of incision line.

The duration of hospital stay ranged between 4 and 19 days with a mean of 5 days. Women who stayed for 5 days or more did so for the baby’s sake. The time taken for surgery ranged between 40 and 60 minutes.

The intraoperative blood loss was average and no patient required blood transfusion during surgery. In the post-operative period four patients i.e. 50% received one unit of blood transfusion each. The preoperative hemoglobin ranged from 9.0 to 13.1 g/dL, the mean being 10.25 g/dL. Mean hemoglobin fall was 1.04 g/dL. No woman needed hysterectomy.

Postoperative pain was similar to that seen after any cesarean delivery and no woman required more analgesics.

One patient had pyrexia without sepsis for two days, with no further complications.

After 6 weeks the uterus had involuted normally and on ultrasound screening, none of the nine women had any fibroid. In one woman with multiple fibroids, one fibroid coming in the line of the incision was removed during cesarean section while the other ones were very small and had disappeared with the involution of the uterus.

Three of the women came to us within a year with early pregnancy. Two of them opted for termination of pregnancy at less than 7 weeks gestation and the termination was uneventfully accomplished. The third patient had an elective repeat cesarean section for breech presentation at a private nursing home at Aligarh.

**Table 1. Demographic features (n=9).**

	Number
Age ( years)	
24 to 27	3
28 to 30	1
31 to 33	3
34 to 36	2
Parity	
0	7
1	0
2	2
Indication for cesarean section	
Cephalopelvic disproportion	2
Fetal distress	4
Malposition	2
Previous two cesarean sections	1

**Discussion**

Uterine myomas are observed in pregnancy more frequently now than in the past because many women are delaying child bearing till their late thirties, which is the time for greatest risk of myoma growth. Also the use of ultrasonography has improved the diagnostic capability of detecting small myomas and has increased our knowledge of myomas in pregnancy.

Several authors have published their results on myomectomy during the course of pregnancy when conservative treatment fails to relieve the woman of her symptoms. Michalas et al <sup>4</sup> reported 18 cases of myomectomy during pregnancy 16 of whom delivered uneventfully at term. Burton et al <sup>5</sup> and Exacoustos and Rosati <sup>6</sup> have reported similar results with a good perinatal outcome but an increased preterm delivery rate. As far as myomectomy at the time of cesarean is concerned, some authors have cautioned against elective myomectomy at that time, because of reported high morbidity especially hemorrhage <sup>2</sup>. Burton et al <sup>5</sup> have reported that myomectomy at cesarean section may be safe in carefully selected patients. In 13 cesarean myomectomies reported by them only one was complicated by intraoperative hemorrhage <sup>4</sup>. On the other hand Exacoustos and Rosati <sup>6</sup> reported nine similar cases of whom three had severe hemorrhage needing hysterectomy.

Michalas et al <sup>4</sup> report a case wherein eight fibroids obstructing the lower part of the uterus were removed during cesarean section without any complication. Ehigieba et al <sup>7</sup> reported 25 cases of cesarean myomectomy in 12 women without any complications. They reported that anemia was the most common form of morbidity. Kwawukume <sup>3</sup> reported cesarean myomectomy in 12 women, without any complications. Their mean operative time was 62.08 minutes, which is similar to that found in our study.

Roman and Tabsh <sup>8</sup> in a retrospective study involving 111 women with myomectomy at cesarean section and 257 women undergoing cesarean section alone noted no significant difference in incidence of intraoperative hemorrhage, post partum fever, operative time, and length of hospital stay.

Omar et al <sup>9</sup> report two cases wherein myomectomy had to be done to facilitate the delivery of the baby during cesarean

section with uneventful intraoperative and postoperative period.

Our study also shows that cesarean myomectomy is not as dangerous as generations of obstetricians have been trained to believe. Enucleation of the fibroid is technically easier in gravid uterus owing to greater looseness of the capsule <sup>3</sup>. Retraction of uterine muscles is enhanced by oxytocic agents to help arrest the hemorrhage.

## Conclusion

Myomectomy during cesarean section is a safe procedure.

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