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Case Series

A case series on caesarean myomectomy

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ABSTRACT

Uterine leiomyoma is the frequently identified benign tumor and its incidence is about 10%-20% in pregnant women. Treatment of myoma during caesarean section remains a debated subject in spite of advancement in medical treatment. A patient who undergoes myomectomy during cesarean section will not require a second operation, anesthetic complications and increased expenditure. Here, we report a series of 8 cases where myomectomy was performed during caesarean section for large anterior lower segment fibroids ranging in size from 4 to 12 cms.

1. Introduction

Uterine leiomyoma is the most commonly identified benign tumour in fertile women and it is about 10% - 20% in incidence,[1] whereas the projected incidence in pregnancy is around 0.1–3.9%. Since uterine fibroid is linked with infertility and reduced implantation rates, the incidence is much lower in pregnancy.[2] Leiomyomas are benign tumours found in the smooth muscles of uterus. The age of onset of leiomyomas is indeterminate and it is seen in women from the period of pre-menorrhea to post-menopause.[3] The prevalence increases with advancing age of women and most of the patients are either asymptomatic or with mild symptoms and require only conservative management.[4]

The uterine fibroids frequency during pregnancy is on the raise and the situation has revealed a fundamental change.[5] Bleeding and spontaneous miscarriage are the common complications of myoma in early pregnancy where as it is linked with preterm complications, premature rupture of membranes and postpartum bleeding.[6,7]

Fibroids greater than 5cm are more prone to develop during pregnancy and can cause spontaneous abortion, labour complications, malpresentations, preterm labour complications retained placenta, postpartum bleeding and uterine torsion.

Treatment of myoma during caesarean section remains debatable and it is regularly avoided due to increased vascularity of the gravid uterus causing immense loss of blood, unnecessary hysterectomy, and augmented perioperative morbidity and mortality.[8]

However, presently caesarean myomectomy is on the raise due to current advancement in the field of anaesthesia, ample accessibility of blood products, careful devascularisation methods, and thus saving the patient from impending sickness due to multiple surgeries, anesthetic complications and increased expenditure.[9]

Here, we report a series of rare cases where myomectomy was done along with caesarean section. Fibroid ranging from 4 to 12 cms from large anterior lower segment were excised. The antenatal, perinatal and postnatal courses are discussed here.

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2. Aim and Objectives

2.1. Aim

To assess the risk and benefits of caesarean myomectomy.

2.2. Objectives

1. To assess the amount of blood loss during caesarean myomectomy.
2. To evaluate the duration of surgery and hospital stay.

3. Materials and Methods

In this retrospective analytical study, 8 patients with complications during pregnancy due to myomas were included. All 8 patients underwent myomectomy during Caesarean section at Saveetha medical college hospital between January 2019 to August 2023

Patients' medical records were used to collecting data such as demography, parity, antenatal condition, type of Caesarean surgery, nature of fibroids, blood loss, postoperative complications and neonatal outcome.

All of the women in the study fulfilled the following five criteria:

1. Diagnosed with fibroid during pregnancy by antenatal USG during surgery;
2. Caesarean delivery
3. Absence of antenatal bleeding;
4. No other surgeries except Caesarean and myomectomy, and
5. No pre-existing coagulation disorders.

Informed consent was obtained from all patients prior to surgery. All the cases had fibroid in anterior lower segment of uterus which interrupted with closure of the uterine incision. Abundant blood and blood products were made ready preoperatively.

4. Results

The mean age of the women in this case series was 30.75 years and mean gestational age at delivery was 38.09 weeks.

When coming to intraoperative blood loss, 2 patients had approximately 350 ml blood loss, 3 patients had around 500 ml blood loss, 2 patients had approximately 800 ml blood loss and 1 has around 1000 ml blood loss.

1. In all cases myomas were anterior and the size was ranging from 4-12 cm.
2. Almost half of the myomas were intramural, also no hysterectomy was required.
3. The size and type of myomas were confirmed by HPE.
4. Myomectomy added 20 minutes extra time to the caesarean section and the hospital stay was same as that of post caesarean section. Also neonatal outcome was good in all patients.
5. Two out of eight cases had malpresentation, one was breech, the other was oblique lie.

5. Discussion

Physiological hypervolemia and hypercoagulability are the common findings in pregnant women. So the pregnant patients can adapt freely with a limited amount of blood loss. Caesarean Myomectomy was observed in 3-12% of pregnant women.[10]

Madhubala M et al, showed that (23.25%) the caesarean myomectomy patients had blood loss which is greater than control subjects. Six of them needed blood transfusion; in which one needed 4 units of blood, and five were given 2 units of blood and ligation of bilateral internal iliac artery.[11]

In our series, only 1 patient lost 1 liter of blood and there was no significant morbidity postoperatively. No other postoperative complications were noted. No hysterectomy was done inspite majority of the patients having big myomas and half of them located intramurally. Stepwise devascularisation was not necessary in any case.

The size and the features of fibroids were confirmed by the pathology report. Haemorrhage, infarction, calcification, and hyaline degeneration were observed in 4 fibroids. The procedure Myomectomy took 20 minutes extra to the original operating time and had the same duration of hospital stay. Postoperative sepsis was not observed in any of the patients.

Our results are in accordance with the other researchers and they have also shown that there has not been any marked elevation in haemorrhagic risk, post-operative complications or increase in the hospital stay.[1,12] Park BJ et al, has also found similar findings that there were no significant differences in terms of blood transfusion, incidence of postoperative fever, surgery duration, and duration of hospital stay between control and caesarean myomectomy groups.[13]

Kwon DH et al, and Machado LS et al also found that there was no significant differences in operative time and the length of hospital stay between control and caesarean myomectomy group.[14,15]

5.1. Purpose of the case series

This is a never ending debate. This article highlights the fact that Caesarean myomectomy can be done in selected patients by expert obstetricians. The purpose of this article is to strengthen the fact that caesarean myomectomy can be done and that it is not associated with complications as it was feared to be previously as there are advances like Uterine artery embolisation and internal iliac artery ligation in selected cases. Though literature supports caesarean myomectomy, many obstetricians fear the procedure due to increased risk of bleeding, but this article reiterates the fact and takes away the fear of caesarean myomectomy

Table 1: Data of this study

Age in Years	Parity	Gestational Age	Myoma Site	Myoma Size	Blood Loss	Procedure time	Hospital Stay
30	Primi	38 wks	Intramural	5X4cm	800 ml	1 hr 20 min	07
36	G2A1	36w6D	Intramural	4X4cm	500 ml	58min	10
27	Primi	40 wks	Subserosal	7X5cm	800 ml	1 hr 12 min	8
33	G2A1	37wks	Intramural	5X4cm	350 ml	1 hr 17 min	7
25	Primi	39wks	Intramural	6X4cm	500 ml	1 hr 35 min	9
38	G2A1	36wks	Subserosal	5X3cm	1000ml	1 hr 2 min	10
30	G2P1L1	38wks	Intramural	8X6cm	500ml	1 hr 10 min	9
27	Primi	40w1D	Intramural	5X45cm	350ml	1 hr 05 min	7

Table 2: Descriptive distribution of age and Gestational age in the given data

Mean age of Cases N =08	30.75 years
Mean Gestational age N =08	38.09 weeks

Table 3: Blood loss during caesarean myomectomy

No. of patients	Blood loss (ml)
2	350 ml
3	500 ml
2	800 ml
1	1000 ml

and hence encourages obstetricians to go ahead with the procedure in selected cases.

Small sample size and the retrospective nature of the study are the limitations.

6. Conclusion

Caesarean myomectomy is a safe and effective procedure when done by skilled surgeons. It results in no significant bleeding or postoperative morbidity. It also relieves symptoms related with fibroids and time and money saving procedure that avoids interval myomectomy. Thus, preserves uterus for future pregnancy.

7. Source of Funding

None.

8. Conflict of Interest

None.

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