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## RESEARCH ARTICLE

### CESAREAN MYOMECTOMY-AN OBSTETRICIAN CHALLENGE?

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#### ABSTRACT

In the modern era fibroid during pregnancy is increased due to increased maternal age and assisted reproductive technique. During caesarean section myomectomy is the most common surgical procedure performed. There is controversy between the obstetricians about myomectomy during caesarean section because of associated complication.

#### INTRODUCTION

The Leiomyoma of uterus is the most common benign smooth muscle tumor in female pelvic organ. Their size reach maximum dimension during reproductive age (Cunningham, 2010). It has been found that maternal age during pregnancy is increasing and the incidence of fibroid are also increased. The reported prevalence of fibroid in pregnancy is between 2-11 percent. The prevalence was highest in black women 18% and lowest (8%) in whites (Laughlin, 2009). They may remain asymptomatic or complicate pregnancy in any trimester. This may lead to abortions, preterm labour, increase of size of fibroid, malpresentations, malposition and obstructed labor. Pain may occur due to red degeneration of fibroid during antenatal period and finding may include focal pain, tenderness on palpation and sometime low grade fever with leucocytosis. sometime parietal peritoneum over fibroid become inflamed and peritoneal friction rub may develop. Myoma degeneration may difficult to differentiate from appendicitis, placental abruption, ureteral stone or pyelonephritis (Cunningham, 2010). Postpartum hemorrhage may occur in 10-30 % of these patients. There are a few case reports in the literature of successful myomectomy in the antenatal period. Surgery were performed in late first or second trimesters for giant or very large fibroids which were symptomatic and present with pain, compressive symptoms. Myomectomy should be considered in any trimester when patient present with severe acute abdominal pain not relived by analgesics.

Pain can be due to torsion of subserous pedunculated fibroid or rapid increase the size of the fibroid. Sir victor bonney is credited with performing and reporting the first CS with removal of 6 fibroids in 30 years old women and she passed safely through three subsequent pregnancy with scarred uterus<sup>3</sup>. The intraoperative cesarean myomectomy may lead intactable bleeding which may lead hysterectomy. Postoperative morbidity may increased.

#### MATERIALS AND METHODS

This was a retrospective study conducted in the department of obstetrics and gynecology in a tertiary care in Govt. hospital for a period of two year. (w.e.f 1<sup>st</sup> August 2017 to 31<sup>st</sup> July 2019). The study included 170 antenatal females who underwent caesarean myomectomy. The written inform consent was taken from the patients.

**Aims and objectives:** The aim was to study the outcome and complications of caesarean myomectomy

##### Inclusion Criteria

All the pregnant females with fibroids who presented in antenatal OPD or reported in emergency and to whom caesarean was indicated and intra operative myomectomy was performed.

**Exclusion Criteria:** Women who did,t give consent were excluded from the study. All patients obstetric and detailed menstrual, contraceptive history was recorded. A complete antenatal examination was done.

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Ultrasound or other tests were done. Serial Ultrasound was done for size, location or any evidence of degeneration and also for placental localisation. The data was analyzed using SPSS Software.

## RESULTS

**Table 1. Age group distribution of cases**

S No.	Age group	number	%age
1	<30 years	31	18.23%
2	30-35years	90	52.94%
3	35-40years	40	23.52%
4	>40 years	9	5.29%

There were 170 patients who underwent caesarean myomectomy. Ninety (52.94%) subjects belonged to 30-35 years age group whereas only 9 (5.29%) belonged to more than 40 years.

**Table 2. BMI of patients**

S No.	BMI	number	%age	
1	normal	18.5-24.9	90	52.94%
2	overweight	25-29.9	61	35.88%
3	obese	>30	19	11.18%

In our study ninety subjects belonged to normal BMI and 61 were overweight, whereas 19 (11.18%) subjects were obese.

**Table 3. Size of Myoma**

S No.	size	number	%age
1	2-5cm	109	64.11%
2	>5cm	61	35.89%

One hundred and nine (64.11%) patients were having myoma size 2-5 cm and 61 (35.89%) patients having size more than 5cm.

**Table 4. Complication of myomectomy**

S No.	Age group	number	%age
1	Blood transfusion	51	30%
2	Step wise devascularisation	6	3.5%
3	Caesarean hysterectomy	2	1.17%
4	mortality	0	

Table 4 showed that out of 170 patients 51 required blood transfusion. Six subjects needed step wise devascularisation and only two needed caesarean hysterectomy.

## DISCUSSION

Resection of myoma is generally contraindicated during pregnancy. Unrelenting pain from infarction and degeneration prompts immediate surgical intervention. Most of authors suggest that myomectomy should be limited to myoma with discrete pedicle that can be easily clamped and ligated. Resection of intramural fibroid during pregnancy or at time of delivery usually stimulates profuse bleeding (Cunningham, 2010). Intramural myomectomy in non pregnant women can be hazardous for subsequent pregnancy. When myoma resection result in a defect into or immediately adjacent to endometrial cavity, uterine rupture may occur remote from labour and sometime even early in pregnancy. Hence prevention depends on caesarean before active labour.

In our study Ninety (52.94%) subjects undergone caesarean myomectomy who belonged to 30-35 years age group. Only 9 (5.29%) belonged to more than 40 years. Leiomyoma are most common in older pregnant women, especially in black women. Twelve patients conceived after IVF. Women with BMI >30 and all of them underwent caesarean myomectomy with indication of caesarean section for maternal or fetal indication. Sixty one (35.89%) of subjects who underwent caesarean myomectomy having myoma of size >5cm. The outcome for caesarean myomectomy was normal. This was also studied by Kwon DH, et al. (2014) that CM was safe and effective for myoma size more than 5 cms. Some authors stated that removal of extended fundal and intramural myomas should be avoided during caesarean delivery<sup>5</sup>. The large myomas should be removed if they are located in the lower segment and block the birth canal or if they are symptomatic (Sheiner et al., 2004). Another review reported that in the majority of cases, myomectomy carried out to resect peduncular myomas and myomas with diameters of less than 6cm was safe, but if the myoma had large diameter, only peduncular myomas and myomas located the lower segment blocking the birth canal should be resected (Awoleke, 2013). Omar, et al. (1999) reported that large uterine myomas situated in the anterior wall of the lower segment, complicating pregnancy at term, myomectomy in both instances allowed delivery of the fetus through the lower segment. Operating times were longer in the caesarean myomectomy patients. Myomas larger than 5 cm in diameter during caesarean delivery was safe. The decision also depended on the skill and experience of the operating surgeon and the facilities in the hospital. High-dose oxytocin intraoperatively and in the postoperative period, uterine tourniquet electrocautery, bilateral uterine artery ligation and other intraoperative techniques are also useful in the reducing the amount of bleeding (Cobellis, 2002; Sapmaz, 2003; Cobellis, 2002). Intracapsular approach is preferred. Carefully haemostasis is achieved, obliteration of dead space to prevent haematoma formation in myoma bed and approximation of myometrium with delayed absorbable suture in 2-3 layer closure done (Tinelli, 2014). Step wise devascularisation was done in 2 cases with lower segment localization which is also seen in study conducted by Desai et al. (2010). The purse-string suture technique could be useful in controlling bleeding (Lee, 2011). Both devascularization and the intracapsular approach are important myomectomy techniques because they depend entirely on the surgeons skill. The oxytocin was used intraoperatively and postoperatively for all patients.

## Conclusion

The caesarean myomectomy still remains controversial topic. Risk benefit ratio should be evaluated. This depends upon the skill and experience of the operating surgeon. The caesarean myomectomy is performed in a center where 24x7 hours facility for anaesthesia blood transfusion, ICU and better post operative monitoring and care available. facility for anaesthesia blood transfusion, ICU and better post operative monitoring and care available.

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