

Original Article

Caesarean Myomectomy is No Longer a Dreaded Job: a Case Control Study in Multiple Specialized Centre

D Zeba¹, SR Das², N Fatima³, N Islam⁴, J Uddin⁵, RK Roy⁶

Abstract :

Removal of uterine myoma during caesarean section (CS) is not commonly done due to fear of severe haemorrhage which may lead to hysterectomy. Contradicting the previous belief many studies have been showing that myomectomy during caesarean section is a safe procedure without significant increase of risk. The objective of this study is to analyze the safety and clinical outcome of caesarean myomectomy. This is a prospective study carried out in different hospitals of Faridpur district, Bangladesh from 01.01.10 up to 31.12.12. Total 16 (study group) patients had undergone caesarean myomectomy. Operation time, peroperative blood loss, post operative complications and length of hospital staying was compared with that of 32 women (control group) with caesarean section alone. The result shows that peroperative blood loss was average 350±100 ml in study group which is 50 ml more than control group. Operation time was 20 minutes more and length of hospital staying was 1 day more than control group. There was no post partum haemorrhage, no hysterectomy was done at the time of CS and there was no maternal or perinatal mortality. So, caesarean myomectomy is safe and convenient to patient and cost effective without increasing any extra risk.

Key words: Caesarean section, myomectomy, myoma

Introduction :

Uterine myoma is the commonest tumour of female genital tract^{1,2}. Though myoma has special association with infertility (25-30%)³, pregnancy with myoma or myoma complicating pregnancy is not so uncommon. The frequency of myoma during pregnancy has been reported to be 0.05-5%². Commonly obstetricians avoid myomectomy during caesarean section in a fear of intractable bleeding due to increased vascularity of pregnant uterus and for developing post partum haemorrhage⁴. But recent studies & reports showed that caesarean myomectomy can safely be done by skilled surgical team⁵⁻⁷. This study has been designed to establish the safety and feasibility of performing myomectomy during caesarean section.

1. Dr. Dilruba Zeba, MBBS, DGO, MCPS, FCPS (Obstetrics & Gynaecology), Assistant Professor, Department of Gynae and obs, Faridpur Medical College, Faridpur.
2. Dr. Shila Rani Das, MBBS, DGO, FCPS (Obstetrics & Gynaecology), Associate Professor, Department of Gynae and obs, Faridpur Medical College, Faridpur.
3. Dr. Nusrat Fatima, NBBS, FCPS, MS (Gynae & Obs), Junior Consultant, Department of Gynae & Obs, Faridpur Medical College Hospital, Faridpur.
4. Dr. Nazrul Islam, MBBS, Rajshahi Medical College, Rajshahi
5. Dr. Julhash Uddin, MBBS, BSMMU.
6. Dr. Rajib Kumar Roy, MBBS, Matuail, Dhaka.

Address of correspondence :

Dr. Dilruba Zeba, MBBS, DGO, MCPS, FCPS (Obstetrics & Gynaecology), Assistant Professor, Department of Obstetrics & Gynaecology, Faridpur Medical College, Faridpur.
Mobile: +88-01712090825, E-mail: dilruba_zeba@yahoo.com

Materials and methods:

This prospective study was carried out from 01.01.10 up to 31.12.12 in different hospitals of Faridpur district, Bangladesh. Sixteen pregnant women were diagnosed with myoma both clinically and by ultrasonography and selected as study group. The selection criteria were: i) Detection of myoma antenatally or during emergency caesarean section, ii) Patients were normotensive and non-diabetic, iii) Haemoglobin percentage was more than 10 gm/dl, iv) Parity, size, site and number of myoma were not considered. Thirty two patients were selected as control group having same criteria of study group without any myoma. Informed consent was taken. All myomectomy was done after delivery of the baby. No tourniquet was applied at the base of the broad ligament. Myomectomy was done conventionally by giving incision over myoma and enucleating it. Lower uterine anterior wall myoma was removed through caesarean incision. Myoma of fundus and anterior wall was removed by giving separate incision. Two posterior wall myoma was removed through cavity by giving incision on endometrium. Dead space was obliterated by mattress suture (1-0 vicryl). For assessment of peroperative blood loss for caesarean myomectomy 1 extra mop was used and blood was collected in a kidney tray by rinsing the mop. All patients were maintained on oxytocin drip and tranexamic acid for first 24 hours. The women were analyzed as age, parity, number-site-size and type of myoma, average time for surgery, peroperative blood loss, post operative complications, blood transfusion and length of hospital stay in comparison to CS done alone in control group.



Figure 1a: 4 myomas removed from one patient



Figure 1b: A single myoma (8x10cm) through caesarean incision of same patient



Figure 2a: Multiple serous myoma (5)



Figure 2b: Multiple myoma removed by multiple incisions



Figure 2c: A lower segment myoma is removing

Result :

Total 16 (sixteen) patients had selective caesarean myomectomy during this period. Most of the patients were in between 26-35 years age. Ten (62.5%) patients were primi and 6 (37.5%) were multigravid. Thirteen (81.25%) pregnancy were term and rest 3 (18.75%) were preterm (Table 1)

Table I: Age, Parity and Gestational age (n=16) in study group.

Variable	Number (%)
Age	
20 - 25	2 (12.5)
26 - 30	8 (50)
31 - 35	6 (37.5)
Gravida	
Primi gravida	10 (62.5)
Multi gravida	6 (37.5)
Gestational Age	
Term	13 (81.25)
Preterm	3 (18.75)

Table II shows that total 23 myoma were removed from 16 patients. Among them 9 (39.13%) myoma were located in lower segment, 12 (52.17%) were in fundus and anterior wall, 2 (8.69%) were in posterior wall. Most of myoma were subserous -15 (65.21%), only one (4.34%) was submucous and rest 7 (30.43%) were intramural. Average size of the myoma were 3-5 cm, and the number were 12 (52.15%). Six (26.08%) were less than 3cm and 5 (21.73%) were large enough measuring about 6-10 cm. The largest myoma was 11×10×9 cm. In 12 (75%) patients myoma was single and in rest 4 (25%) patients there were multiple myomas highest number was 4 in 1 patient. Eleven (68.75%) patients had elective surgery and 5 (31.25%) had emergency surgery.

Table II: Site, Type, Size and Number of myoma removed

Variable	Number (%)
Site of myoma (n=23)	
Lower segment	9 (39.13)
Fundal & anterior wall	12 (52.17)
Posterior wall	2 (8.69)
Type of myoma (n=23)	
Subserous	15 (65.21)
Intra mural	7 (30.43)
Submucous	1 (4.34)
Size of myoma	
< 3 cm	6 (26.08)
3 - 5 cm	12 (52.17)
6 - 10 cm	5 (21.73)
Number of myoma in one patient (n=16)	
Single	12 (75)
Multiple	4 (24)

Table III: Time required for surgery, blood transfusion, length of hospital staying

Parameter	Caesarean myomectomy (Case group) n=16	Caesarean section alone (Control group) n=32	P value
Time required for surgery	55±5 minutes	35±5 minutes	<0.05
Average blood loss	350±100 ml	300±100 ml	>0.05
Length of hospital staying (Average)	5±1 days	4±1 days	>0.05

* Data was analysed with two sample t test.
 P< 0.05 means result significant
 p>0.05 means result not significant

In case group, average time required for surgery was 20 minutes more than the control group. Extra time was

required where there were multiple myomas. The result was statistically significant. Average blood loss was about 50 ml more than control group which was not statistically significant (p>0.05). Length of hospital stay was 1-2 days more in case group than control group and the result was not statistically significant.

Discussion:

Generally most of the obstetricians do not suggest myomectomy during caesarean delivery due to increased chance of severe haemorrhage which may lead to hysterectomy¹. And it is a common practice to do interval myomectomy. Recently many case studies have been published showing the safety of caesarean myomectomy by experienced hand in selected patient⁵⁻⁷. Incidence of pregnancy with myoma is gradually increasing specially due to delayed age of marriage. On the other hand the rate of caesarean section is also increasing. So, a caesarean myomectomy may reduce the number of laparotomy. Caesarean myomectomy is cost effective and beneficial for the patient by avoiding second surgery, anesthetic hazards and complications of myoma in subsequent pregnancy⁶. In the current study the average time required during operation was about 20 minutes more than the control group, about 50 ml blood loss more and average 1 day more hospital stay in case group than control. No patient got blood transfusion preoperatively in both case and control group. In postoperative period only 2 (8.69%) patients of case group received 1 unit of blood transfusion. No woman needed hysterectomy and post operative recovery was as usual in both groups. Only one patient had pyrexia due to wound infection in case group. After 6 weeks the uterus had involuted normally and on USG none of them had any fibroid. There was no maternal or perinatal mortality in both groups. So, other than more operative time there is no statistically significant difference between two groups.

Ehigiegba AE et al. shown in their study that caesarean myomectomy is safe with average per operative and postoperative bleeding⁵ which simulate with that of my study. Study done by Cobellis L et al. has shown that scar integrity following caesarean myomectomy is better than interval myomectomy⁸. This may be due to the fact that uterus in the postpartum phase is better adapted physiologically to control haemorrhage, as contraction and retraction offers better haemostasis⁴. Moreover enucleation of the fibroid is technically easier in gravid uterus due to extra looseness of the capsule⁶. High incidence of uterine fibroid in pregnancy sometimes invites unavoidable myomectomy at the time of emergency caesarean section. So, obstetrician should have necessary skill and positive mental setup to perform emergency caesarean myomectomy.

Conclusion:

This study shows that myomectomy during caesarean section is a safe procedure by skilled surgical team and no longer a dreaded job. It can be performed without significant complications and should be performed with caution with availability of blood and in selected patients.

References :

1. Akhter N, Begum F, Begum N, Chowdhury SB. Myomectomy at the time of Caesarean section: A Prospective multicentre study. BSMMU J. 2011; 4(2): 102-5.
2. Lippma SA, Warner M, Samuels S, Olive D, Vercellini P, Eskenazi B. Uterine fibroids and gynecologic pain symptoms in a population based study. Fertil Steril. 2003; 80: 1488-94.
3. Stewart EA. Uterine fibroid. Lancet 2001; 357:293-8.
4. Flake GP, Andersen J, Dixon D. Etiology and Pathogenesis of uterine leiomyomas: A review. Environ Health Perspect. 2003; 111: 1037-54.
5. Ehigiegba AE, Ande AB, Ojobo SI. Myomectomy during caesarean section. Int J Gynaecol Obstet. 2001; 75 :21-5.
6. Kwawukume EY. Myomectomy during caesarian sectin. Int J Gynaecol Obstet. 2002; 76: 183-4.
7. Brown M, Myrie M. Caesarean myomectomy-a safe procedure. West Ind Med J. 1997; 46(2): 45.
8. Cobellis L, Messali EM, Satradella L, Pecori E, Cobellis G. Restitution ad integrum of myometrium after myomectomy. Different result in pregnant and non pregnant patient. Minerva Ginecol. 2002; 54: 393-5.