

Caesarean Section on Maternal Request - A “Boon” or a “Concern” in Modern Obstetrics

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ABSTRACT

Introduction: Increasing concerns over rapidly rising cesarean section (CS) rates on one hand and recognizing cesarean section on maternal request (CSMR) as an indication of CS on other, have triggered an inexhaustible debate over whether CS should be looked as a “concern” or a “boon” for modern obstetrics. The aim of this study was to find out the percentage of women undergoing CSMR at our institute between July 2017 to August 2018 and reasons behind it.

Material and Method: This study was conducted at Dr. Bhim Rao Ambedkar Memorial Hospital during aforementioned time frame. All CS were analyzed and CSMR were recorded.

Results: There were a total of 9970 deliveries during study period, of which 4457 (44.70%) were delivered by CS. There were 6.05% (n=270) women who opted for CSMR. Most common reasons behind CSMR were: do not want TOLAC (31.11%), uncertainty of outcome of trial of labor (17.40%), and history of taken treatment of infertility (16%). Most of the mothers (90.74%) and babies (85.93%) had no complications. Most common complication was post partum hemorrhage in mothers (5.55%) and respiratory morbidity in babies (7.03%)

Conclusion: The issue of CSMR is an ongoing bioethical debate. It highlights the struggle to balance autonomy of a mother with the duty of obstetrician to provide safe, effective and satisfying maternity care. Also, it doesn't matter when, how and where you gave birth. What matters is how you cherish every moment thereafter.

Keywords: Caesarean Section on Maternal Request, Post Partum Hemorrhage, Respiratory Morbidity.

INTRODUCTION

The cesarean delivery, a rescue to life, has a long history. Once, associated with high maternal and fetal mortality is now considered as a safe procedure. Evidence of safety of CS in literatures now shows that the elective CS in experienced hands, in absence of major complicating factors can be almost as safe as a vaginal birth.¹

In 1985, the WHO recommended that the optimal caesarean section rates should not be higher than 10-15%, reaffirmed in 2015 that above 10% and upto 30%, there is no added reduction in maternal & neonatal mortality.² This reference seems to have become a milestone till today. The average CS rates into the majority of developing region currently exceed 15%.^{3,4} Now a days in developing countries like India, one of the most common contributing factors for increasing CS rate is “Caesarean Section on maternal request” (CSMR). It is defined as a pre-labor caesarean section performed at the request of mother in the absence of any medical or obstetric indications.⁵ Studies have shown that 90% of obstetricians

are confronted by women asking for CSMR, showing higher demand of elective cesarean section.⁶

Dr. Michael Robson once stated that- “Caesarean section rates should no longer be thought of as being too high or too low, but rather whether they are appropriate or not, after taking into consideration all the relevant in formations.” and hence, it can be deduced that no empirical evidence exists for an ideal caesarean rate but what matters most is all women who need CS should receive it.⁷ A recent WHO publication on studies between 1990-2014 has shown that there is an average increase of 4.4% in CS rates annually.⁸ We live in a heterogeneous world. On one hand there are areas with very high maternal mortality like Africa, due to lack of availability of emergency CS and on other hand in some developed countries a very high rates of CS exists even though no further evidence of improved perinatal outcome exists.⁹

MATERIAL AND METHODS

Present observational study was conducted in July 2018 to August 2019 at Dr. Bhim Rao Ambedkar Memorial Hospital Raipur, Chhattisgarh.

Inclusion criteria - All women undergoing CSMR were included.

Exclusion criteria - All the CS done for any medical/obstetric indications were excluded from the study.

All the women undergoing CSMR were duly explained about pros and cons of CSMR and informed consent were obtained. Their socio-demographic profile and reasons behind opting for CSMR were recorded.

Age of women included in the study and their educational qualification were recorded.

Women were stratified on the basis of their obstetric history (primigravida/multigravida). Percentage of women undergoing CSMR amongst all the CS was calculated. The reason for opting CSMR was tabulated and the results were

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analyzed as percentage.

Fetal and maternal complications in women undergoing CSMR were also noted and compared with all CS performed during study period for reasons other than CSMR. Data for women undergoing CS other than CSMR was obtained from the registers maintained in the department after obtaining permission from the concerned in-charges. Neonatal complications were recorded from registers maintained by department of pediatrics after taking permission. All the data for the fetomaternal complications were tabulated and percentage were calculated in both the groups.

RESULTS

A total of 270 women amongst 4457 caesarean deliveries had CSMR, which is about 6.05% of total CS. Majority of them (34.18%) were between 31 to 35 years age group. Multigravidas opted for CSMR more than primigravida (65.80% v/s 34.20%). Table-I shows demographic, educational and obstetric profile of women included in study respectively.

There are variations amongst primi and multigravidas as far as reasons for CSMR are concerned. Table-II shows various reasons for opting for CSMR by women included in this study. While uncertainty regarding the outcome of trial of labor and those who conceived after treatment of infertility were the major cause of CSMR in primigravida, not willing for trial of labor after caesarean section (TOLAC) and

previous poor neonatal outcome contributed to maximum number of multigravidas requesting CSMR. Table-III shows the materno-fetal complications. Most of the mothers and fetuses had no complications. Most common complication was post partum hemorrhage in mother and respiratory morbidity in baby. The incidence of postpartum infections and intra-operative injuries to surrounding structures were lower in the group undergoing CSMR compared to the group with CS of any other indication, highlighting the reduced morbidity and increased safety profile in CSMR group as shown in table-III.

DISCUSSION

Many social, cultural and psychological factors may play a role for rising incidence of CSMR. Labor is variable in nature, onset and outcome. With increasing numbers of educated and career oriented women, an elective CS affords them to have a luxury of scheduling their absence from work. The rights are same for a woman in any country but privilege varies according to socio-economic and cultural scenario of society. In our setting with socialistic health care, performing CSMR for non medical and non obstetrical reasons may not always be fulfilled. In developed countries with ample resources, this privilege may be granted, rather allowed.

In our study, the most common reason for CSMR was multiparous women who do not want TOLAC (31.11%). Mahvish et.al., in 2018, also reported non willingness for

Age (in years)	Number of women	Percentage
<20	15	5.74
20-25	49	17.89
26-30	37	13.79
31-35	77	28.40
>35	92	34.18
Total	270	100
Gravidity	Primigravida	Multigravida
Number	92	178
Percentage	34.20	65.80
Educational status	Number of women	
Primary (till class 5 th)	12	
High school (till class 10 th)	38	
Higher secondary (till class 12 th)	154	
Graduate	62	
Post graduate	04	

Table-1: Demographic, educational and obstetric profile of women

Indications	No. of primigravida (26.66%)	No. of multigravida (73.33%)
Do not want TOLAC (31.11%)	-	84
Uncertainty about outcome of trial of labor (15.92%)	30	13
H/O of infertility treatment & prolong inter-pregnancy outcome (16.66%)	24	21
Previous poor neonatal outcome (14.81%)	-	40
Painless labor (7.40%)	12	08
For concurrent TT (6.66%)	-	18
Bitter previous experience (3.70%)	-	10
Astrological concerns (3.70%)	06	04

Table-2: Reasons for opting for CSMR

Maternal complications	CDMR	CS other than CDMR
No complications	245 (90.74%)	3598 (85.93%)
Maternal deaths	00	32 (0.76%)
PPH	15 (5.55%)	336 (8.02%)
Post partum infections	06 (2.22%)	188 (4.49%)
Damage to bladder	01 (0.37%)	04 (0.09%)
Damage to bowel	00	01 (0.02%)
Damage to uterine artery	03 (1.11%)	28 (0.66%)
Damage to other adjacent organs	00	00
Total	270	4187
Neonatal condition		
No complication	237 (87.77%)	3173 (75.78%)
Still births	00	116 (2.77%)
PNM prior to discharge	01 (0.37%)	54 (1.28%)
Respiratory distress syndrome	04 (1.48%)	114 (2.72%)
Transient tachypnoe of newborn	15 (5.55%)	134 (3.20%)
Meconium aspiration syndrome	02 (0.74%)	217 (5.18%)
Hypothermia	01 (0.37%)	03 (0.07%)
Hypoglycemia	01 (0.37%)	07 (0.16%)
NICU admission	09 (3.33%)	369 (8.81%)
Total	270	4187

Table-3: Maternal and fetal complications

TOLAC as the major contributor to CSMR.¹⁰ A study in 2017, conducted on 17,898 women undergoing TOLAC, reported a 0.69% rate of uterine rupture and a perinatal mortality rate of 0.11% per 1000 TOLAC. They also found a statistically significant increase in hypoxic brain injury in babies of women related to uterine rupture compared to one undergoing planned CS. Also, other complications like endometritis and blood transfusions were significantly more common with TOLAC compared to a planned repeat CS.¹¹ These risk, although small may not be acceptable to the mother.

In current study, one of the major reason contributing to CSMR was women with previous poor neonatal outcome (14.8%). Understandably they are very anxious regarding perinatal outcome. Caesarean section eliminates detrimental intra-partum events like shoulder dystocia, non progress of labor and reduces the risk of meconium aspiration.¹² and hence CS may be perceived as a better and safer option in such women. Similar is the case with women who conceived after treatment of infertility and those who although conceived spontaneously but had waited for years altogether to get pregnant. They may not be willing to play a gamble on any possibility of risk involved to the neonate.

Another important reason quoted by women for preferring CSMR was, uncertainty about outcome of trial of labor. A woman may have her own understanding about the pros & cons of different mode of delivery. They may not be willing to undergo a tedious 6-18 hours of uncertainty of vaginal delivery. A study conducted by Panda et al found this reason to be the second most common reason for mothers choosing CSMR.¹³

In a study conducted by Olieman et al, in 2017, it was concluded that, if CSMR was not granted to women who persisted in preferring CSMR, had significantly higher

symptoms of post traumatic stress disorder and depression after vaginal delivery than women who had planned a vaginal delivery.¹⁴ A morbid fear of process of delivery and childbirth, is sometimes referred to as tokophobia. Tokophobia, may occasionally result from child sexual abuse, rape or simply the manifestation of peri-partum depression. Secondary tokophobia, may result from previous bitter child birth experience. Clearly, women requesting CSMR are vulnerable group who needs more targeted counseling to address their anxiety levels. However, if they still wish for CSMR, elective CS may be considered as a valid alternative. Safety data on CSMR with no intercurrent medical condition are not available. However, proponents of CSMR points out that the mortality data for elective CS are largely drawn from a population of women who have a valid medical indication for CS and hence cannot be generalized to CSMR.¹⁵ In current study too there were no cases of maternal mortality and still born babies, highlighting the high safety profile of the procedure.

The major complication in group undergoing CSMR was post partum hemorrhage (PPH) which was about 5% but was still lower than in all other CS. A retrospective study conducted in China, showed that there is no significant difference in complications like PPH, maternal infections, organ injuries, thromboembolic disorder and maternal mortality in women undergoing CSMR and those having planned vaginal delivery.¹⁶ However the respiratory morbidity was higher in CSMR group, stressing the need to strictly follow the policy of elective CS at 39 weeks.

Decision concerning the mode of delivery is tricky and unlike other medical procedure consent is not straightforward as it involves the right of fetus also. Secondly, labor and childbirth is inevitable physiological process. Risk-benefit ratio has to be assessed in decision making and in scenarios

where both are equal; woman’s choice can play an important role. Perhaps this situation best sums up the ethical grounds on which CSMR stands.

We are at the turning point in obstetric thinking. We promote concept of family planning, pre pregnancy counseling, antenatal screening and prenatal testing, so why not planning for delivery. We are in an era of fetal surgery, to correct even a minutest of defect, all this to fulfill the concept of “Every pregnancy matters”. Is it unethical to refuse women a mode of delivery that removes uncertainties of labor and which she personally finds safer?

An as obstetrician our current approach should be non directive counseling incorporating women’s value, cultures, family background, socio-economic condition and most importantly sensitivity to her concern.

CONCLUSION

We do not support the notion of “caesarean section for all” concept. Studying of reason behind decision of CSMR has shown that the major concern in the mind of mother is the utmost safety of her child. Although this concern can be tackled in most of the women by a sensitive counseling approach, it may not be always successful. Right of a patient to refuse to a treatment modality is well established but whether reverse is acceptable or nor opens a wide area of debate. Till then it may be acceptable to respect the decision of women for CSMR.

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REFERENCES

1. Das A. Caesarean delivery on maternal request. Saudi journal for health sciences vol. 2, issue-3, Sep-Dec 2013
2. WHO statement on cesarean section rates, 2015. www.who.int/reproductivehealth
3. Ye J, Zhang J, Mikolajczyk R, et.al. Association between rates of cesarean section and maternal and neonatal mortality in 21st century: a worldwide population based ecological study with longitudinal data. BJOG. 2016;123:745-753.
4. A, P, Betran, M.R. Torloni, J.Zhang et. al. What is the optimal rate of cesarean section at population level? A systematic view of ecological studies. reproductive health, vol. 12, no. 1, article 57,2015
5. American college of Obstetrician and gynecologist. ACOG committee opinion no. 559: cesarean delivery on maternal request. Obstet Gynecol. 2013; 121:904-7
6. Obed JY, Bako BG, Agida TE, Nwobodo EI. Caesarean delivery on maternal request: Consultants view and practice in the west African sub region. Journal of the west African college of surgeons. Volume 3 number 1, January-March 2013
7. Pandey D. Robson criteria: An emerging concept. Open access journal of Gynecology. Volume 2 issue 2, April 2017
8. Betran AP, YE J, Moller AB, Zhanj J, Gumezoglu AM, Torloni MR. The increasing trends of cesarean section rates: Global, regional and national estimates; 1990-2014. PLoS One. 2016;11:e148343
9. Ye J, Bertan AP, Guerrero Vela M, Souza JP, Zhang J. Searching for the optimal rate of medically necessary caesarean delivery. Birth. 2014; 41:237-44.
10. Qazi M et.al. Int J Reprod Contracept Obstet Gynecol. 2018;7:4003-4007
11. Mark B. William A. What we have learned about trial of labor after cesarean delivery from the MRMU cesarean registry. Semin Perinatol 2016;40: 281-286.
12. Mann A. Mehta S. Grover A. Caesarean delivery on maternal request (CDMR): clinical and ethical dilemma. Int J Reprod Contracept Obstet Gynecol 2017;6:3201-2.
13. Panda S, Jha V, Singh AS. Review of cesarean section on maternal request in a tertiary care institute; Scenario in developing country. Kathmandu Univ Med J 2013;44:349-354.
14. Oliemann RM, Siemansma F, Barten MA, Niegel SG, Scheele F, Honing A: The effect of an elective caesarean section on maternal request on peripartum anxiety and depression in women with child birth fear: a systemic review. BMC pregnancy and childbirth 2017;17:195.
15. Caesarean section on maternal request. ACOG Committee opinion no. 761. American College Of Obstetricians and Gynecologists. Obstet Gynecol 2019;133:e73-7
16. Liu X, Landon MB, Cheng W, Chen Y. Caesarean delivery on maternal request in China: What are the risks and benefits? Am J Obstet Gynecol 2015;212:817. e1-9.

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