

Assessment of Maternal Consequences of Caesarean Section: A Retrospective Study

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ABSTRACT

Background: Rates of caesarean delivery continue to rise worldwide. Maternal preferences are an important influence on decisions about mode of delivery. At present, evidence of longer-term complications of caesarean delivery has not been adequately synthesized to allow fully informed decisions about mode of delivery to be made. Hence; the present study was undertaken for assessing maternal consequences of caesarean section.

Materials & Methods: Data record of a total of 130 women was enrolled in the present study. These 130 women were broadly divided into two study groups as follows: Group 1: Primary elective group (n=58), and Group 2: Failed vaginal delivery (n=72). Complete demographic details of all the subjects were obtained from the data record files. An excel chart was prepared and outcome and complications were recorded systematically.

Results: Overall, out of 130 females, complications were found to be present in 18 women (13.85%). However; among patients of Group 1, complications were found to be present in 5 patients (8.62%) while among patients of Group 2, complications were found to be present in 13 patients (18.06%). On comparing statistically, overall prevalence of complications was significantly higher among patients of group

2. Uterine corpus was the most common maternal complication was found to be present in 2 patients of group 1 and 4 patients of group 2.

Conclusion: Emergency caesarean section is associated with significantly higher risk of maternal complications in comparison to elective caesarean procedures.

Key words: Caesarean, Complications, Maternal.

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INTRODUCTION

Rates of caesarean delivery continue to rise worldwide. In the presence of maternal or fetal complications, caesarean delivery can effectively reduce maternal and perinatal mortality and morbidity; however, an increasing proportion of babies are delivered by caesarean when there is no medical or obstetric indication.¹⁻³ The short-term adverse associations of caesarean delivery for the mother, such as infection, haemorrhage, visceral injury, and venous thromboembolism, have been minimized to the point that caesarean delivery is considered as safe as vaginal delivery in high-income countries, though in low- and middle-income countries, there is an increased risk of adverse short-term maternal outcomes even with caesarean delivery without medical indication.^{4,5} Maternal preferences are an important influence on decisions about mode of delivery. At present, evidence of longer-term complications of caesarean delivery has not been adequately

synthesized to allow fully informed decisions about mode of delivery to be made.⁶ Hence; the present study was undertaken for assessing maternal consequences of caesarean section.

MATERIALS & METHODS

The present study was conducted in the Department of Obstetrics and Gynaecology, Narayan Medical College and Hospital, Sasaram, Bihar (India) and it included assessment of maternal consequences of caesarean section. Ethical approval was obtained from institutional ethical committee in written after explaining in detail the entire research protocol. Data record of a total of 130 women was enrolled and these 130 women were broadly divided into two study groups as follows:

Group 1: Primary elective group (n=58)

Group 2: Failed vaginal delivery (n=72)

Complete demographic details of all the subjects were obtained from the data record files. An excel chart was prepared and outcome and complications were recorded systematically.

All the results were recorded and analysed by SPSS software. Chi—square test was used for assessment of level of significance. P- value of less than 0.05 was taken as significant.

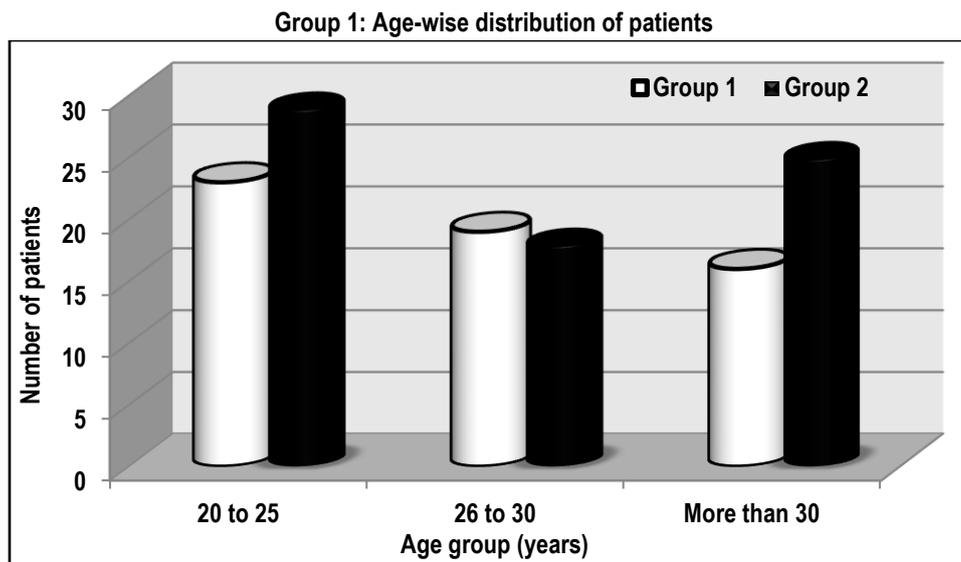


Table 1: Prevalence of maternal complications

Maternal complications	Number of patients	Percentage of patients
Group 1	5	8.62
Group 2	13	18.06
Overall	18	13.85
Chi- square value	402.88	
p- value	0.016 (Significant)	

Table 2: Maternal complications

Maternal complications	Group 1 (n)	Group 2 (n)
Uterine corpus	2	4
Blood loss of more than 1000 ml	1	3
Fever	1	2
Hematoma	0	2
Urinary tract infection	1	2

RESULTS

In the present study, a total of 130 females were analysed who underwent caesarean section. Among these females, 58 females comprised of primary elective group (Group 1) while the remaining 72 females comprised of failed vaginal group (group 2). Majority of patients of both the study groups belonged to the age group of 20 to 25 years. Overall, out of 130 females, complications were found to be present in 18 women (13.85%). However; among patients of Group 1, complications were found to be present in 5 patients (8.62%) while among patients of Group 2, complications were found to be present in 13 patients (18.06%). On comparing statistically, overall prevalence of complications was significantly higher among patients of group 2.

In the present study, uterine corpus was the most common maternal complication was found to be present in 2 patients of group 1 and 4 patients of group 2. Blood loss of more than 1000 ml was found to be present in 1 patient of Group 1 and 3 patients of group 2. Fever was found to be present in 1 patient of Group 1 and 2 patients of Group 2. Hematoma was found to be present in 2 patients of Group 2. Urinary tract infection was found to be present in 1 patient of Group 1 and 2 patients of Group 2.

DISCUSSION

A caesarean section (CS) can be a life-saving intervention when medically indicated, but this procedure can also lead to short-term and long-term health effects for women and children. Given the increasing use of CS, particularly without medical indication, an increased understanding of its health effects on women and children has become crucial, which we discuss in this Series paper. The prevalence of maternal mortality and maternal morbidity is higher after CS than after vaginal birth.⁵⁻⁷ In emergencies, or when a fetal or maternal indication is present, the choice is clear. But in cooler moments, such as repeat or maternal choice of caesarean, it makes sense to consider the risks and benefits of caesarean versus vaginal delivery, just as we would for other medical treatments. Both modes of delivery are associated with well-known acute risks.⁸⁻¹⁰ Hence; the present study was undertaken for assessing maternal consequences of caesarean section.

In the present study, majority of patients of both the study groups belonged to the age group of 20 to 25 years. Overall, out of 130 females, complications were found to be present in 18 women (13.85%). However; among patients of Group 1, complications

were found to be present in 5 patients (8.62%) while among patients of Group 2, complications were found to be present in 13 patients (18.06%). On comparing statistically, overall prevalence of complications was significantly higher among patients of group 2. Van Ham MA et al assessed the intra-operative surgical complications and postoperative maternal morbidity rate of caesarean section. A total of 2647 women, delivered by caesarean section in our department between 1983 and 1992, were studied retrospectively. Three caesarean section groups were formed: (1) primary elective, (2) primary acute, without any effort to deliver vaginally, and (3) secondary acute, due to a failed vaginal delivery. The overall maternal intra-operative complication rate was 14.8%. The most common complications were lacerations of the uterine corpus (10.1%) and blood loss > or = 1000 ml (7.3%). The complication rate of the secondary group (23.4%) was significantly higher ($p < 0.001$) compared to both primary groups (7.4%). The overall maternal postoperative morbidity rate was 35.7%. Fever (24.6%), bloodloss between 1000 and 1500 ml (4%), haematoma (3.5%) and urinary tract infections (3.0%) were the most frequent complications. The primary elective group showed significantly ($p < 0.001$) lower major (2.6%) and minor (23.7%) complication rates compared to the emergency groups (major 5.2%, minor 34%). Emergency caesarean sections carried the greatest risks regarding maternal complications compared to elective procedures.¹¹

In the present study, uterine corpus was the most common maternal complication was found to be present in 2 patients of group 1 and 4 patients of group 2. Blood loss of more than 1000 ml was found to be present in 1 patient of Group 1 and 3 patients of group 2. Fever was found to be present in 1 patient of Group 1 and 2 patients of Group 2. Hematoma was found to be present in 2 patients of Group 2. Urinary tract infection was found to be present in 1 patient of Group 1 and 2 patients of Group 2. Hemminki E studied whether women having had caesarean sections (index women) have more subsequent health problems, measured by hospital admissions, than women having had vaginal deliveries (control women). The study involved comparison of hospital admissions before (2-5 years) and after (7-10 years) the first caesarean section (exposure) among two cohorts of index and control women. About 75% of all Swedish primiparas who had a caesarean section in 1973 ($n = 2578$) and in 1976 ($n = 3822$), and their age-matched controls, were studied; non-Swedish women and women with certain specific problems at their first birth were excluded. Numbers of discharges from general and mental hospitals excluding discharges relating to birth, and in some analyses to pregnancy, were determined. Total numbers of discharges from general and mental hospitals, and the numbers of discharges with operations, were higher among index than control women both before and after exposure. In analyses by diagnosis, a caesarean section was a risk factor for ectopic pregnancies and sterilisations. The analyses suggested that the higher rate of hospital admission after caesarean section than after vaginal delivery is not due to the section itself, but to a continuation of a previous pattern of health service use.¹²

CONCLUSION

It can be concluded that emergency caesarean section is associated with significantly higher risk of maternal complications in comparison to elective caesarean procedures.

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