

# Evaluation of maternal and perinatal morbidity and mortality in previous caesarean section cases

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## Abstract

**Background:** According to World Health Organization “There is a story behind every maternal death and life-threatening complication. **Aims and Objectives:** To Evaluate maternal and perinatal morbidity and mortality in previous caesarean section cases. **Methodology:** This was retrospective study of 156 cases of previous cesarean birth was conducted at Indian Institute of Medical Science and Research, Warudi, Jalna from May 2015 to April 2016. The details of the patients like morbidity, mean hospital stay, Perinatal mortality and Morbidity was retrieved. **Result:** No any maternal mortality seen and the common morbidity pattern in patients with pre cesarean section were Wound gape (Dehiscence) in 2.56, Burst Abdomen -0.64%, Blood transfusion required in 1.28%, Obstetric Hysterectomy -0.64%. Mean hospital stay : Elective LSCS =9.5 days, Emergency LSCS =9.4, Vaginal birth =6.7 days. The perinatal outcome in present series one congenital anomaly (FSB) with omphalocele and One FSB (Fresh Still Birth) in case of scar rupture and four Neonatal death among study cases. **Conclusion:** A women with cesarean section is at increased risk regardless of mode of birth and eliminating vaginal birth after cesarean will not eliminate the risk. Vigilance with respect to primary cesarean delivery is the only way to avoid this dilemma.

**Key Words:** Perinatal morbidity and mortality, caesarean section, FSB (Fresh Still Birth).

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## INTRODUCTION

According to World Health Organization “There is a story behind every maternal death and life-threatening complication.” Understanding the lessons to be learnt can help to avoid such outcomes.<sup>1</sup> The pregnant woman is usually young and in good health before she becomes critically ill; hence, her prognosis will be better if she receives timely intensive care intervention. Obstetric patients requiring intensive care unit (ICU) admission may reflect near-miss maternal mortality and is now considered as maternal morbidity.<sup>2-4</sup> Maternal near-miss

case is defined as “a woman who nearly died but survived a complication that occurred during pregnancy, childbirth, or within 42 days of termination of pregnancy.”<sup>4</sup> Maternal mortality rates are improving worldwide hence attention is switching to morbidity and as a marker of this obstetrics admission to ICU is scrutinized.<sup>3,4</sup> Cesarean section, an operation mainly evolved to save a maternal life during difficult childbirth, has now become increasingly the procedure of choice in high risk situations to prevent perinatal morbidity and mortality. This alarming rise in the rate of cesarean sections has been a matter of concern to the profession and the public and the need to scrutinize existing practices has been voiced very often. So trial of labour in cases of previous cesarean section has been accepted as a way to reduce the overall cesarean rates.

## MATERIAL AND METHODS

This was retrospective study of 156 cases of previous cesarean birth was conducted at Indian Institute of Medical Science and Research, Warudi, Jalna from May 2015 to April 2016. Patients with Previous cesarean birth, previous one caesarian section for non-recurrent

indication, Singleton fetus with Cephalic presentation were included into study while Post-datism with unfavorable cervix, Malpresentation, Pregnancy with PIH, Fetal distress, Clinical CPD, Bad obstetric history, IUGR, Previous two or more cesarean birth were excluded from the study. The details of the patients like morbidity, mean hospital stay, Perinatal mortality and Morbidity was retrieved.

## RESULT

**Table 1:** Distribution as per the morbidity

Distribution	No. Cases	Percentage (%)
Wound gape (Dehiscence)	4	2.56
Burst Abdomen	1	0.64
Blood transfusion required	2	1.28
Obstetric Hysterectomy	1	0.64

The common morbidity pattern patients with pre cesarean section were Wound gape (Dehiscence) in 2.56, Burst Abdomen -0.64%, Blood transfusion required in 1.28%, Obstetric Hysterectomy -0.64%.

**Table 2:** Maternal Morbidity with respect to Hospital Stay

Hospital Stay Distribution	Up to 5 days	5-10days	10-20 days	>20
Repeated elective LCSC	-	6	2	-
Repeat emergency LSCS	2	85	24	4
Vaginal birth	20	9	5	-

**Mean hospital stay:** Elcetive LSCS =9.5 days, Emergency LSCS =9.4, Vaginal birth =6.7 days.

**Table 3:** Perinatal Morbidity and Mortality

Distribution	No. of cases	Percentage (%)
Baby with mother	95	60.90
Warm cubical	36	23.08
NICU	23	14.74
Neonatal death	4	2.56
Fresh still birth	2	1.28
<b>Total</b>	<b>156</b>	<b>100.00</b>

The perinatal outcome in present series one congenital anomaly (FSB) with omphalocele and One FSB (Fresh Still Birth) in case of scar rupture and four Neonatal death among study cases.

## DISCUSSION

Increases in caesarean rates may be partially explained by changes in maternal characteristics and obstetric practice.<sup>7</sup> Studies examining the effect of caesarean delivery in the second stage of labor on maternal and neonatal morbidity have compared outcomes with vaginal delivery<sup>7</sup> and have considered second stage duration.<sup>10</sup> Recent data<sup>9</sup> suggest that caesarean delivery in labor is associated with increased maternal morbidity compared with caesarean delivery with no labor. Caesarean section at full cervical dilatation with an impacted fetal head can be technically difficult and associated with increased

trauma to the lower uterine segment and adjacent structures, as well as increased hemorrhage and infection.<sup>12</sup> Previous studies have evaluated the risks of adverse maternal, fetal and neonatal outcomes associated with caesarean delivery in labour by comparing caesarean with other methods of delivery<sup>6</sup> and by duration of labour,<sup>7,11</sup> a review of the literature found no reports assessing the risks of maternal or perinatal morbidity following caesarean delivery by stage of labour (full cervical dilatation compared with less than full dilatation). Studies have demonstrated lower Apgar scores with caesarean in the first stage of labour<sup>9</sup> and higher risks of fetal trauma with caesarean in labour.<sup>6</sup> No differences have been reported for blood loss greater than 1000 mL, intraoperative trauma or neonatal sepsis.<sup>6</sup> Overall rates of selected maternal and perinatal morbidity investigated in our study were low and differed from other studies<sup>6,7</sup> In our study we have not seen any maternal mortality seen and the common morbidity pattern in patients with pre cesarean section were Wound gape (Dehiscence) in 2.56, Burst Abdomen -0.64%, Blood transfusion required in 1.28%, Obstetric Hysterectomy -0.64%. Mean hospital stay : Elective LSCS =9.5 days, Emergency LSCS =9.4, Vaginal birth =6.7 days. The perinatal outcome in present series one congenital anomaly (FSB) with omphalocele and One FSB (Fresh Still Birth) in case of scar rupture and four Neonatal death among study cases. While A. Sharma<sup>13</sup> they found Maternal morbidity was in the form of postpartum hemorrhage (2 cases), urinary tract infection and spinal headache. In one case cesarean section was done for scar tenderness but during surgery scar rupture was found which resulted in PPH. In second case PPH was due to extension of angle in cesarean section done for obstructed labour. Kore *et al*<sup>8</sup> have reported an incidence of 1.4% PPH and 0.5% rupture uterus, compared to 1.9% PPH and 0.98% rupture in the present study. The total neonatal admissions were 23 in which 3 were in the vaginal delivery group, 7 were in the elective cesarean group and 13 were in the emergency cesarean group. There were 2 neonatal deaths (1.9%) in our study. In one case there was scar rupture and in other case cesarean section was done for protracted labour.

## CONCLUSION

A women with cesarean section is at increased risk regardless of mode of birth and eliminating vaginal birth after cesarean will not eliminate the risk. Vigilance with respect to primary cesarean delivery is the only way to avoid this dilemma.

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