

Original research article

Fetomaternal Outcome in Cesarean Sections Done in Second Stage of Labor

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Abstract

World-wide 10 to 20 % delivery require some form of interventions which include cesarean sections. A prospective observational study was conducted at Patna Medical College Hospital comprised of 400 Cesarean sections included 22 sections performed in second stage of labor. It was concluded that Cesarean sections performed in second stage of labor were associated with increased mortality and morbidity.

Conclusion: Cesarean sections done on second stage of labor are associated with increased intra-operative maternal complications and neonatal morbidity.

Keywords: Cesarean sections, second stage labor

Introduction

Cesarean can be performed before labor, during first and second stages of labor, A decrease in the rate of operative vaginal delivery has been observed with a corresponding increase in the cesarean deliveries during second stage of labor.

Second stage interventions are the methods to facilitate delivery of the fetus in the form of assisted vaginal delivery or by instrumental delivery-Worldwide 10-20% of delivery require some form of intervention which is frequently cesarean section. Second stage cesarean is technically difficult due to engagement of the fetal head is associated with increased maternal and fetal morbidity. The maternal morbidity includes major haemorrhage, uterine incision extension into the broad ligament and prolonged operation time.

Neonatal mortality and morbidity is mainly due to hypoxia and fetal trauma.

OBJECTIVE

To study fetomaternal outcome in cesarean sections done in second stage of labor.

MATERIALS & METHODS

This is a prospective observational study of 22 cases of cesarean section done in second stage of labor in Patna Medical College hospital during September 2015 to April 2016. This study was approved by local ethics committee. Verbal consent was obtained from the patient. The onset of labor is defined as the period of time from full cervical dilatation (10cm) to delivery.

Inclusion criteria:

- Singleton pregnancy irrespective of parity.
- Period of gestation of >37 weeks. - With/without previous LSCS.

Exclusion criteria:

- Multiple pregnancy.
- Preterm deliveries.
- Malpresentations.
- Medical complication associated with pregnancy

RESULT

There were total 1200 deliveries during the study period. Out of these 756(62%) deliveries were normal vaginal deliveries, 400(30%) cesarean section, 30(2.5%) were vacuum assisted vaginal deliveries and 14 (1.16%) were forceps deliveries. Of the 400 cases of cesarean sections, 22 cases were performed in the second stage of labor contributing 1.8% of total deliveries and 5.5% of all sections. Most common indication for cesarean section in second stage of labor is deep transverse arrest (38.46%) and most common fetal position was the occipito-posterior position (30.76%).

Table 1:

MODE OF DELIVERY	Number	%
NORMAL VAGINAL DELIVERY	756	62%
LSCS	400	50%
VACCUME	30	2.5%
FORCEPS	14	1.16%

The mean age of the patients who underwent cesarean in second stage was 22.84 years. Among these 22 patients, 14(63.63%) were primi gravid and 08-(36.36%) were Multigravid. Second stage cesareans are associated with increased risk of PPH. Total 7 patients had PPH. of these surgical management was needed for 2(13.63%) and rest of the 4 patients were managed medically.

Table 2:

Complications Encountered	Number of Patients	Percentage (%)
PPH (med management)	4	18.18%
PPH (surgical management I)	2	13.63%
LUS TEAR	3	13.63%
FEBRILE MORBIDITY	3	13.63%
HENORRHAGIC URINE	4	18.18%
WOUND SEPSIS	1	4.54%

Lower segment tears including extension, broad ligament hematoma were 13.63% along with other complications like extraction difficulty, blood stained urine, post operative fever, and wound sepsis and longer hospital stay (mean duration being 8.9 days).

Neonatal Issues:

Among the 22 babies 8 were female and 14 were male babies. The mean birth weight was 3.3kg number of babies with birth weight >3kg is 16(81.18%).

Meconium stained amniotic fluid is present in 30.76% cases. None of the baby had APGAR score at 5th minute less than 7. Timely second stage cesarean sections reduce the neonatal complications.

DISCUSSION

This was a prospective observational study conducted at Patna Medical College and Hospital from September 2015 to April 2016. Out of 400 cesarean sections 22 sections were performed in the second stage of labor which contributes to 1.8% of the total deliveries and 5.55% of the sections. Deep transverse arrest was the most common indication (38.46%) for cesarean sections in second stage of labor. The study conducted by Jonna Malathi and Venigalla sunita had the rate of second stage cesarean section 4.1%. In the same study deep transverse arrest was the second most common indication (22%) for cesarean section in the second stage.

The mean age of these patients was 22.84 years. Among these 63.63% were primigravida and 36.36 were multigravida. In a study on frequency of second stage interventions and its outcome in relation with instrumental vaginal delivery by Shahla baloch et al most of the women who need second stage intervention were among 21 to 30 years, primigravida also contributed 45%. In the study by Malathi and Sunita, 61% women were in the age group of 21 to 30 years and primigravidas contributed to 74%. The increased frequency of second stage cesareans in primigravidas could be cephalopelvic disproportion, rigid perineum and lack of experience of previous labor.

In our study maternal morbidity was observed in the form of PPH 6(27.27%) cases of these which required surgical management i.e. B-Lynch sutures was 7.69%, rest of the 18.18% cases were managed medically. Other maternal complications were LUS tear and angle extension (14.63%) febrile morbidity (13.63%), blood stained urine (18.18%) and wound sepsis 4.54%. In the study by Malathi and Sunita, PPH was observed in 8%, out of these 2% were managed medically. Surgical management was done in 6% cases. Other maternal morbidities were also similar in the study by Shahla, PPH was present in 12.5%, wound infection in 8.33% and angle extension in 5.41% cases. Cesarean section performed in second stage of labor was technically difficult because fetal head was engaged in the pelvis, uterine muscles were thin and tense, identification of the bladder and lower segment was difficult. Neonatal morbidity was not much significant in our study. The mean birth weight among these babies was 3.3kg. MSAF was present in 30.76% cases. There were controversies regarding the fetal outcome in the cases of cesarean sections in second stage of labor. Study by Ayhan Sucak, Asicioglu, Malati etc had proved adverse prognostic impact on fetal outcome. But many studies like Allen et al. Alexander. Selo-Ojeme etc. including the current study failed to demonstrate an increased fetal complications.

CONCLUSION

Cesarean sections done in second stage of labor are associated with increased maternal complication and neonatal morbidities.

LIMITATIONS

This study had limitations related to sample size and did not studied the effect of second stage cesarean section on less common but serious outcomes such as cesarean hysterectomy, maternal death and perinatal death.

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