

Outcome of caesarian section in primiparous patients: A cross sectional study in tertiary care institute

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Abstract

Introduction: Cesarean section (CS) which is the major obstetric procedure and has been observed to be performed with marked increase rate in all over world. Cesarean section is rapid method of delivery by abdominal route but associated with maternal and fetal complication. **Aims and Objectives:** To study the outcome of caesarian section in primiparous patients performed in a tertiary care institute. **Material and Method:** The data for the present study was collected from all the primiparous pregnant women came for delivery. All the pregnant primiparous women undergone for cesarean section for various indications were selected. Thus total 189 primiparous pregnant women were delivered by cesarean section in the study duration. The detail obstetric and menstrual history was recorded. Information regarding type of operation, birth weight of baby was noted down on. Apgar score was calculated for each baby delivered by cesarean section in primis at one minute and at five minutes. Number of blood transfusion given was also recorded. Hemoglobin status of all the study population at the time of admission and at the time of discharge was measured and compared. The collected data was entered in the excel sheet and presented with appropriate tables and graphs. **Results:** Majority of the mothers in the present study were less than 25 years of age. In 64.02% cases, cesarean section was done after giving trial for normal labour. Cephalopelvic disproportion (38.62%) was the most common indication for cesarean section in the study which was followed by fetal distress (24.87%) and abnormal presentation (21.16%). It was observed that in some women multiple indication for cesarean section were present. Apgar score was measured at 1 min and at 5 min after delivery and it was seen that in 65.98% and 81.96% neonates score more than 7 was at 1 and 5 min respectively. 48.97% babies were weighing between 2500 to 3000 grams. **Conclusion:** Thus in the end we conclude that Cephalopelvic disproportion was the most common indication for cesarean section in the primiparous women which was followed by fetal distress. And outcome of cesarean section in primiparous women was better with good APGAR score.

Keywords: cesarean section, primiparous, APGAR score, Cephalopelvic disproportion.

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INTRODUCTION

Cesarean section (CS) which is the major obstetric procedure and has been observed to be performed with marked increase rate in all over world.¹ Cesarean section

is rapid method of delivery by abdominal route but associated with maternal and fetal complication. Infection, hemorrhage, complication of anesthesia bladder damage, prolonged hospital stay and delayed recovery are common complications when compared with vaginal delivery, which is natural way of delivery associated with rapid recovery and less hospital stay. Postpartum hemorrhage (PPH), especially primary PPH is one of the top five causes of maternal mortality in both developed and developing countries.² The advent of better anesthesia, availability of improvised surgical techniques and prophylactic antibiotics have made caesarian section a relatively safer procedure in the practice of modern obstetrics^{3,4}. In past cesarean section used to be a last resort for delivery while now it is a method of choice over any unpredictable and unavoidable traumatic vaginal

delivery. Now a day increased safety of the cesarean section has widened the indications in primiparous patients. Thus the present study was conducted to study the indication and outcome of cesarean section in primiparous women.

AIMS AND OBJECTIVES

To study the outcome of caesarian section in primiparous patients performed in a tertiary care institute.

MATERIAL AND METHOD

The data for the present study was collected from all the primiparous pregnant women came for delivery. All the pregnant primiparous women undergone for cesarean

section for various indications were selected. Thus total 189 primiparous pregnant women were delivered by cesarean section in the study duration. The detail obstetric and menstrual history was recorded. Information regarding type of operation, birth weight of baby was noted down on. Apgar score was calculated for each baby delivered by cesarean section in primis at one minute and at five minutes. Number of blood transfusion given was also recorded. Hemoglobin status of all the study population at the time of admission and at the time of discharge was measured and compared. The collected data was entered in the excel sheet and presented with appropriate tables and graphs.

RESULTS

Table 1: Agewise distribution of women

Age in years	No. of cases	Percentage (%)
15-20	72	38.10
21-25	104	55.03
26-30	10	5.29
Above 30	3	1.59
Total	189	100

It was seen that majority of the mothers in the present study were less than 25 years of age.

Table 2: Distribution of women according to the type of operation and indication

		No. of cases	Percentage
Type of operation	Elective cesarean section	9	4.76
	Emergency (directly taken for C.S.)	59	31.22
	Cesarean section after trial of labour	121	64.02
	Cephalopelvic disproportion	73	38.62
	Fetal distress	47	24.87
	Abnormal presentations	40	21.16
	Failure to progress in labor	31	16.40
Indications*	PIH	29	15.34
	Oligohydramnios	21	11.11
	Intra-uterine growth Restriction(IUGR)	15	7.94
	Eclampsia	8	4.23
	Prolonged infertility	6	3.17
	Twins	5	2.65
	Elderly primiparous patients	4	2.12
	Antepartum hemorrhage	6	3.17
	Scar on the uterus	73	38.62

*multiple responses were obtained

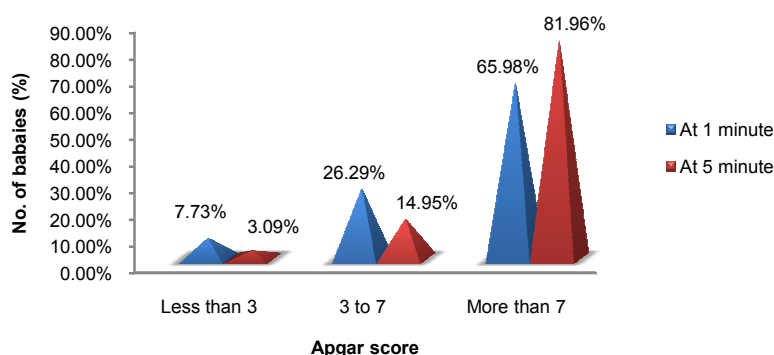
It was evident from the table that in 64.02% cases, cesarean section was done after giving trial for normal labour. 31.22% cases were directly taken for cesarean section on admission because of various reasons whereas elective cesarean section was done in 4.76% cases. While studying the various indications for cesarean section among the study population, it was observed that

cephalopelvic disproportion (38.62%) was the most common indication for cesarean section in the study which was followed by fetal distress (24.87%) and abnormal presentation (21.16%). It was observed that in some women multiple indication for cesarean section were present.

Table 3: Distribution of babies according Apgar score

		No. of cases (n=194)*	Percentage
Apgar score At 1 minute	Less than 3	15	7.73
	3 to 7	51	26.29
	More than 7	128	65.98
Apgar score At 5 minute	Less than 3	6	3.09
	3 to 7	29	14.95
	More than 7	159	81.96
Weight (grams)	≤ 2000	24	12.37
	2001-2500	62	31.96
	2501-3000	95	48.97
	> 3001	13	6.70

*There were 5 twin babies.

**Figure 1:** Distribution of neonates according Apgar score

Apgar score was measured at 1 min and at 5 min after delivery and it was seen that in 65.98% and 81.96% neonates score more than 7 was at 1 and 5 min respectively. Less than 3 Apgar score was observed in 7.73% neonates at 1min whereas in only 3.09% neonates at 5 min. While studying the birth weight of babies it was observed that 48.97% babies were weighing between 2500 to 3000 grams. There were 12.37% babies having weight less than 2000 grams. 6.70% babies were weighing more than 3000 grams.

DISCUSSION

The present study was conducted with the objective to study the outcome of caesarian section in primiparous patients performed in a tertiary care institute. For the purpose of study total 189 primiparous women undergone caesarian section were enrolled in the study. It was observed that majority of the mothers in the present study were less than 25 years of age. It was seen that in 31.22% cases caesarian section was done on emergency basis. Whereas in 64.02% cases, caesarian section was done after giving trial for normal labour. Elective caesarian section was done in 4.76% cases. It was observed that cephalopelvic disproportion (38.62%) was the most common indication for caesarian section in the study which was followed by fetal distress (24.87%) and

abnormal presentation (21.16%). It was observed that in some women multiple indication for caesarian section were present. Similar findings were also observed by H.Konar⁵ and Rajgopalan⁶ in their studies. Apgar score was measured at 1 min and at 5 min after delivery and it was seen that in 65.98% and 81.96% neonates score more than 7 was at 1 and 5 min respectively. Less than 3 Apgar score was observed in 7.73% neonates at 1min whereas in only 3.09% neonates at 5 min. Meis *et al*⁷ and Kenneth *et al*⁸ observed similar findings in their study. In 1952, Dr Virginia Apgar devised a scoring system that was a rapid method of assessing the clinical status of the newborn infant at 1 minute of age and the need for prompt intervention to establish breathing.⁹ Thus the Apgar score provides convenient shorthand for reporting the status of the newborn infant and the response to resuscitation. It was observed that majority of the neonates in the study were having APGAR score more than 7, i.e. normal score at 1 and 5 min. Thus we could state that by doing caesarian section as an early intervention to prevent further deterioration of neonate especially when cephalo pelvic disproportion and fetal distress like complications are present. While studying the birth weight of babies it was observed that 48.97% babies were weighing between 2500 to 3000 grams. There were 12.37% babies having

weight less than 2000 grams. 6.70% babies were weighing more than 3000 grams.

CONCLUSION

Thus in the end we conclude that Cephalopelvic disproportion was the most common indication for cesarean section in the primiparous women which was followed by fetal distress. And outcome of cesarean section in primiparous women was better with good APGAR score.

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