

Cesarean Section in Primiparous Women: A Retrospective Study

Anita Bablad

ABSTRACT

Background: A cesarean section is a surgical procedure that when undertaken for medical reasons can save the life of women and their babies. The primary cesarean section rate is increasing. Many cesarean sections are undertaken unnecessarily, however, which can put the lives and well-being of women and their babies at risk—both in the short-term and in the long-term.

Aims and objectives: To determine the rate, antenatal risk factors, indications, intraoperative, and postoperative complications of cesarean delivery in primiparous women.

Materials and methods: This was a retrospective study conducted from January 2019 to December 2019. The study included all primiparous women who delivered by cesarean section after 28 weeks of gestation. The detailed information was collected from the records and then analyzed.

Results: The total number of deliveries during the study period was 790; out of which cesarean deliveries were 456 (57.72%), and the number of primiparous women who underwent cesarean section was 150 (18.98%). The most common age-group in the study group was 18–25 years. Out of 150 women, 32 (21.33%) were preterm, 86 (57.34%) were term, and 32 (21.33%) were postdated pregnancy, respectively. Most (101/67.34%) of them were unbooked, while 49 (32.66%) were booked cases. The most common antenatal risk factors were anemia (43.34%) and postdated pregnancy (21.34%). The most common indication of cesarean section was non-reassuring fetal heart rate (FHR) (22%). Out of 150 women, 103 (68.66%) had undergone emergency cesarean section. Intraoperative and postoperative complications were less. There was one maternal mortality (0.66%) postoperatively during the study period.

Conclusion: When medically necessary, cesarean delivery can effectively prevent maternal complications. Hence, women who need cesarean section should be identified accurately to reduce the rate of cesarean section in primipara and also to reduce maternal complications in short and long terms.

Keywords: Caesarean section, Complications, Indications, Maternal, Primipara, Rate.

Journal of South Asian Federation of Obstetrics and Gynaecology (2021): 10.5005/jp-journals-10006-1864

INTRODUCTION

Caesarean delivery is one of the common obstetric surgeries. Lower segment transverse incision is the usual method of approach for cesarean delivery.¹ A cesarean section, when undertaken for medical reasons, can save the life of a woman and her baby.²

Caesarean section rates have been steadily increasing worldwide over the last few decades above the levels that cannot be considered medically necessary. This trend has not been accompanied by significant maternal or perinatal benefits. On the contrary, there is evidence that potentially unnecessary cesarean sections may put the lives and well-being of women and their babies at risk both in the short-term and in the long-term.²

The cesarean section increases the likelihood of requiring a blood transfusion, the risk of anesthesia complications, organ injury, infection, and thromboembolic disease.² It has been associated in the long-term with an increased risk of asthma, obesity in children, and complications in subsequent pregnancies, such as uterine rupture, placenta accreta, placenta previa, ectopic pregnancy, infertility, hysterectomy, and intraabdominal adhesions. The risk of these morbidities is progressively increasing since the number of previous cesarean deliveries is increasing.²

Caesarean delivery on maternal request (CDMR) is defined as primary cesarean delivery on maternal request in the absence of any maternal or fetal indication.³

Department of Obstetrics and Gynecology, Navodaya Medical College Hospital and Research Centre, Raichur, Karnataka, India

Corresponding Author: Anita Bablad, Department of Obstetrics and Gynecology, Navodaya Medical College Hospital and Research Centre, Raichur, Karnataka, India, Phone: +91 8296336438, e-mail: dranitaetiga@gmail.com

How to cite this article: Bablad A. Cesarean Section in Primiparous Women: A Retrospective Study. *J South Asian Feder Obst Gynae* 2021;13(1):15–17.

Source of support: Nil

Conflict of interest: None

AIMS AND OBJECTIVES

To determine the rate, antenatal risk factors, indications, intraoperative, and postoperative complications of cesarean delivery in primiparous women.

MATERIALS AND METHODS

This is a retrospective study conducted in the Department of Obstetrics and Gynecology from January 2019 to December 2019 in Navodaya Medical College Hospital and Research Centre, Raichur, Karnataka, India.

Inclusion Criteria

- The study included all primiparous women who delivered by lower segment cesarean section after 28 weeks of gestation.

Exclusion Criteria

- Primiparous women belonging to gestational age <28 weeks
- H/o previous uterine surgery
- Information regarding age, obstetric history, booked or unbooked, antenatal risk factors, rate, indication, types of cesarean section, intraoperative, and postoperative complications were collected from hospital records and then analyzed.

RESULTS

During the study period, the total number of deliveries was 790; out of which the total number of cesarean deliveries was 456 (57.72%), and the total number of primiparous women who underwent cesarean section was 150 (18.98%)

The most common age-group (116/77.33%) in the study group who underwent cesarean section was 18 to 25 years. Out of 150 women, 32 (21.33%) were preterm, 86 (57.34%) were term, and 32 (21.33%) were postdated pregnancy, respectively. Most of them (101/67.34%) were unbooked, while 49 (32.66%) were booked cases (Table 1).

The most common antenatal risk factors present were anemia (65/43.34%) followed by postdated pregnancy (32/21.34%), oligohydramnios (28/18.66%), and prelabor rupture of membranes (24/16%). Some women had more than one antenatal risk factors (Table 2).

The most common indication of cesarean delivery was non-reassuring FHR (33/22%) followed by CPD (31/20.66%) (Fig. 1).

Out of 150 cases, 103 (68.66%) underwent emergency cesarean delivery, while 47 (31.34%) had an elective cesarean delivery (Table 3).

Only four patients had intraoperative complications, in which two (1.33%) had postpartum hemorrhage (PPH) and two (1.33%) had an extension of uterine angle (Table 4). During the postoperative period, there was one (0.66%) maternal mortality. There were no other postoperative complications.

DISCUSSION

Caesarean section is one of the common obstetric surgery. The rate of cesarean section in primiparous women in this study was 18.98% (Fig. 2).

According to the study conducted by Nair et al.,⁴ the most common age-group of primipara undergoing cesarean section was 20–25 years, which is almost similar to the present study.

In this study, the maximum (57.34%) number of primipara undergoing cesarean section belonged to term pregnancy, which is similar to the study conducted by Gupta and Gary.⁵

The study done by Ratib et al.⁶ shows cesarean section in the unbooked primiparas was 15% compared to 12% in the booked ones. In the present study, out of 150 primiparas, 101 (67.34%) were unbooked, while 49 (32.66%) were booked.

A study carried by Jaganath et al.⁷ shows anemia (67.68%) as a common antenatal risk factor and fetal distress (40%) as a common indication of cesarean section in primipara. Even in this

Table 1: Distribution of cases according to demographic characteristics

Characteristics	No. of cases	Percentage
Age (years)		
18–25	116	77.33
26–35	33	22
36–40	01	0.6
Gestational age (weeks)		
<37 weeks	32	21.33
37–40 weeks	86	57.44
>40 weeks	32	21.33
Booked	49	32.66
Unbooked	101	67.34

Table 2: Antenatal risk factors

Risk factors	No. of cases	Percentage (%)
Anemia	65	43.34
PIH	20	13.33
Oligohydramnios	28	18.66
PROM	24	16
Meconium-stained liquor	04	2.6
IUGR	03	2
Rh negative pregnancy	04	2.6
Postdated	32	21.34
Malpresentation	11	7.3
Multiple pregnancies	04	2.6

Table 3: Distribution of cases according to the type of caesarean section

Type	No. of cases	Percentage (%)
Elective	47	31.34
Emergency	103	68.66
Total	150	100

Table 4: Intraoperative complications

Complications	No. of cases	Percentage (%)
PPH	2	1.33
Extension of uterine angle	2	1.33

study, anemia (43.34%) is a common antenatal risk factor, and non-reassuring FHR is a common (22%) indication of cesarean section. Even the study carried out by Kuntal et al.⁸ shows a similar result. In the present study, out of 150 primiparas, almost 103 (68.66%) of them had undergone emergency cesarean section, which is similar to the study carried out by Ahmed et al.⁹ (71.7%) and Patal et al. (85%).

During the study period, only four primiparas had intraoperative complications. Uterine extensions were probably due to cesarean section done in the second stage of labor, which again may be due to women reaching late to the hospital. PPH was managed medically.¹⁰

Postoperatively there was one (0.66%) maternal mortality during the study period, which was probably due to amniotic fluid embolism.

Improved surgical skill, good anesthetic techniques, use of antibiotics preoperatively and postoperatively, availability of blood



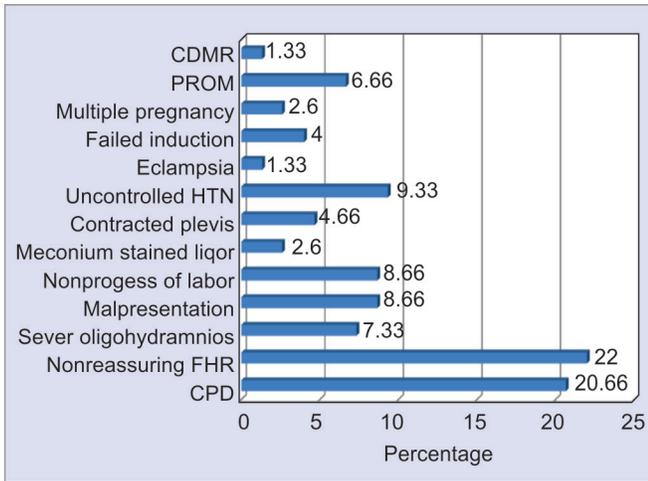


Fig. 1: Indication of caesarean section

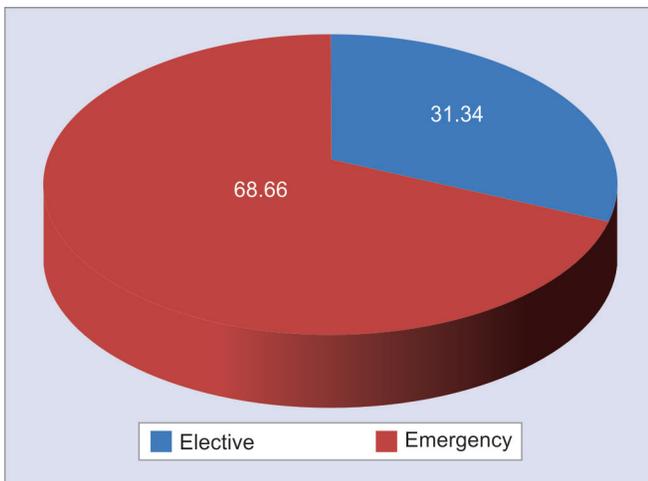


Fig. 2: Distribution of cases according to the type of caesarean section

and blood products, and uterotonic drugs were the reason for the lesser rate of intraoperative and postoperative complications.

In this study, out of 150 primiparas, 13 (8.66%) had malpresentation as the indication of cesarean section. In case of breech presentation, a trial of vaginal delivery should be given with strict monitoring. Even in the case of twin pregnancy, if both fetuses are in vertex presentation, vaginal delivery can be offered. This can reduce the incidence of cesarean section.

During the present study period, 2 primiparas had undergone CDMR probably due to the fear of pain and anxiety. This can be reduced by educating such women regarding safe vaginal delivery

and also the long-term complications of cesarean delivery if undergone when really not indicated.

CONCLUSION

When medically necessary, a cesarean delivery can effectively prevent maternal complications. On the contrary, potentially unnecessary cesarean sections may put the lives and well-being of mothers and their babies at risk. Hence, women who need cesarean section should be identified accurately so that the cesarean section rate in primipara can be reduced, which further reduces the rate of repeat in cesarean section and complications in the future pregnancy. In this study, cesarean delivery was common in the unbooked and younger age-group. Education should be given to these women regarding regular antenatal check-up and reaching on time to the hospital so that maternal complications can be prevented.

Women who have fear of pain in childbirth should be educated that in the absence of maternal and fetal indications for cesarean delivery, a plan for vaginal delivery is safe and appropriate. By doing this, unnecessary cesarean section can be avoided.

REFERENCES

1. Daftary SN, Chakravarti S, Peri MV, et al. Caesarean delivery. In: Holland and Brews manual of obstetrics. 4th ed. vol. 74. 2016. p. 497–450.
2. WHO recommendation: non-clinical interventions to reduce unnecessary cesarean section; 2018. ISBN:978-92-4-155033-8.
3. ACOG-cesarean delivery on maternal request No-761; 2019. Available from: [www.acog.org/womens-Health/Cesarean Delivery](http://www.acog.org/womens-Health/Cesarean%20Delivery).
4. Nair RV, Sowbharnika CP, Seetha PM. A clinical study on indication for cesarean section among primigravida in a tertiary care centre. *Obstet Gynecol Rev* 2019;5(2):119–124. DOI: 10.17511/Moog.2009.102.06.
5. Gupta M, Gary V. The rate and indications of cesarean section in a tertiary care hospital at Jaipur, India. *Int J Reprod Contracept Obstet Gynecol* 2017;6(5):1786–1792. DOI: 10.18203/2320-1770.ijrcog20171530.
6. Mesleh RA, Asiri F, Al-Naim MF. Cesarean section in primigravida. *Saudi Med J* 2000;21(10):957–959.
7. Jaganath P, Himangshu M, Konyak P, et al. Primary cesarean section in primigravida: a clinical study. *Sch J Appl Med Sci* 2016;4(9B): 3307–3311. DOI: 10.21276/sjams.2016.4.9.25.
8. Kuntal N, Gupta S, Gupta VK, et al. To study indications for primary cesarean section in primigravida and multigravida. 2019;3(6): 155–158. DOI: 10.33545/gynaec.2019.V3.16c.407.
9. Ahmed SR, Alsheeha MA, Alsammani MA. Risks and indications for cesarean section in primiparous women: a case control study. *Ann Trop Med Public Health* 2013;6(5):541–544. DOI: 10.4103/1755-6783.133711.
10. Organization WHO. WHO statement on cesarean section rates. Geneva, Switzerland: World Health Organisation, Department of Reproductive Health Band Research; 2015.