

# An Audit of Indication for Primary Caesarean Section Deliveries in Multigravida - A Descriptive Study

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**Abstract:** ***Background:** The purpose of this study was to monitor and examine the necessity for primary Caesarean section in multiparous women. The aim of this study was to determine the prevalence and indications for primary Caesarean section in multiparous women who had one or more previous vaginal births, as well as to assess the maternal and neonatal outcomes. **Methods:** A prospective observational study of primary Caesarean section in Parous women with prior vaginal delivery for one year at our institute from 25 May 2022 to June 10 2023 at Srinivas institute of medical sciences and research centre, MUKKA, Mangalore at department of Obstetrics and Gynaecology. **Results:** There was total of 487 Caesarean section out of 1192 total deliveries with 68 primary Caesarean section in Parous women were done. The most common age group were 21 - 30 (83.8%). The majority group were para - 2 (55.8%). The most common indication for Caesarean section was fetal heart rate abnormalities (41.18%) followed by failed induction (16.18) and malpresentation (11.76%). The maximum number of cases were in MRC - 3 (61.76%). Among this group (10.29%) had postpartum complications. **Conclusion:** Previous vaginal delivery gives a false sense of security but they may need caesarean section In future pregnancy. Routine antenatal care with proper monitoring with clear interpretation of cardiotocograph for complications for both during antenatal and intrapartum improves the maternal and perinatal outcome. Thereby multiparous women in labour requires the same attention as required for primigravida women in labour.*

**Keywords:** Caesarean section, multipara, multiparous women, primary caesarean section, incidence

## 1. Introduction

Caesarean section is the most commonly performed surgical procedure in obstetrics and can be life saving for the child, the mother or both (1). A Caesarean delivery is the birth of a foetus by laparotomy and subsequent hysterotomy. It refers to a surgical method in which foetuses are delivered after the 28th week by an incision on the abdomen and uterine walls.

The rise in caesarean section rates in both industrialised and developing nations is one of the most striking hallmarks of modern obstetrics. Increased procedure safety, foetal distress, particularly detection by continuous electronic foetal monitoring, more liberal use of caesarean section for breech presentation, multiple gestation, restricted intrauterine growth, fear of litigation, and maternal request are all reasons for the global increase in caesarean section rates. The WHO suggests a caesarean section rates of 10 - 15 %. (3)

A primary caesarean section is a first - time caesarean procedure, whereas a secondary Caesarean section includes the female having one or more previous vaginal deliveries.

The term 'para' total number of previous pregnancies that achieved viability and were delivered, regardless of the number of babies involved. The word "Multipara" denotes to a lady who has gone through two or more prior pregnancies that have reached the viability stage. (4) Multiparity is a problem associated with teenage marriages, low literacy rate, low socio - economic status, high perinatal mortality,

preference for male child and ignorance about family planning measures.

Primary caesarean section in multipara refers to first time caesarean section in multiparous women who have had previous one or more vaginal delivery [5].

It is often assumed that a multiparous woman who has had a previous vaginal birth would have a normal vaginal delivery in her following pregnancy. As a result, the majority of multiparous women disregard prenatal care appointments and stay in poor health throughout pregnancy and labour. These women receive specialist monitoring only if an emergency occurs during pregnancy or birth, or if a caesarean section is required.

Primary caesarean deliveries in multipara are a key target for reducing primary caesarean section, since these women have previously vaginal births, therefore there may be opportunities to avoid the necessity for caesarean delivery. As a result, the study was designed to determine the prevalence and indications for primary Caesarean section in multiparous women with one or more past vaginal births, as well as to assess the maternal and perinatal outcomes.

## 2. Materials and Methods

The present prospective Descriptive study was performed in the Department of Obstetrics and Gynecology at Institute of medical sciences and research centre, MUKKA, Mangalore. The research was carried after receiving approval of

Institutional Ethical committee of the college. The study was conducted for a period of one year from 1<sup>st</sup> June 2022 to 1<sup>st</sup> June 2023.

The study included 68 multiparous women having primary caesarean section in the department of college and fulfilling the inclusion and exclusion criteria was included in the study. Written informed consent was taken before enrolling participants in the study. The consent form stated that there were no side effects of this study on mother and baby.

All multiparous undergoing primary caesarean section was included as per modified Robson's criteria MRC - 3, MRC - 4 and MRC - 9 was included in the study. Primigravida, Previous hysterotomy, patients with previous cesarean section, Previous uterine scars (myomectomy, septoplasty) was excluded from the study.

The data was collected using a conventional proforma. Patient details and detailed history, intra - operative events, and delivery outcome of selected multiparous women undergoing primary caesarean section at the Institute were collected daily from hospital records over a year. The study population was tracked and assessed for any postoperative morbidity of mother and infant till the date of discharge

**Statistical Analysis**

The data was coded in

**3. Result**

There was total of 1192 deliveries in study period of which 487 Caesarean section.

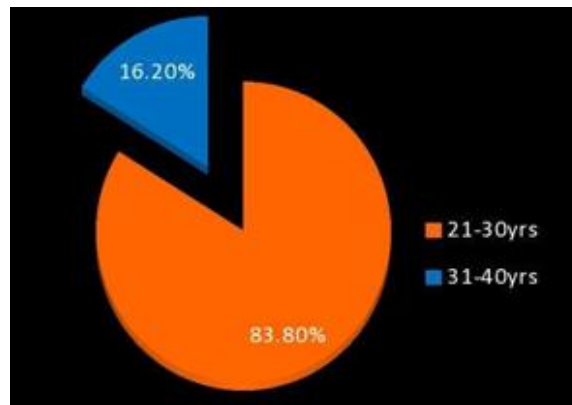
Total 68 (13.96%) primary Caesarean section in multiparous women were done. Majority (83.8%) of multiparous patients having primary Caesarean section belongs to age group of 21 - 30 years while only 16.2% patients belong to 31 - 40 years age group.

The majority of patients (55.8%) were in para - 2 followed by Para 3 with 29.41%. Para 4 and Para 5 accounted for only 11.74% and 2.95% patients respectively. (Table 2) The study also founded that 79.4% of the patients were booked while only 20.6% of patients were unbooked. (Table 3) Among the participants of study 61.8% were in MRC - 3, 26.5% were in MRC - 4 and 11.5% were in MRC - 9. (Table 4)

The most common indication for prnmary Caesarean section among study participants was fetal heart rate abnormalities (41.18%) followed by failed induction (16.18) and malpresentation (11.76%). The other factors which also indicated for primary cesarian section included Obstructed labour, Failure to progress (prolonged labour), IUGR with severe oligo, Placenta Previa, Twins and Cervical Prolapse. (Table 5)

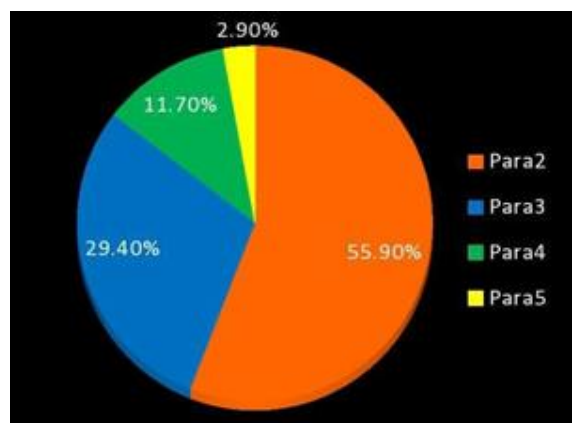
**Table 1: Age**

Age (yrs)	Number of patients	Percentage
21 - 30	57	83.80%
31- 40	11	16.20%
Total	68	100%



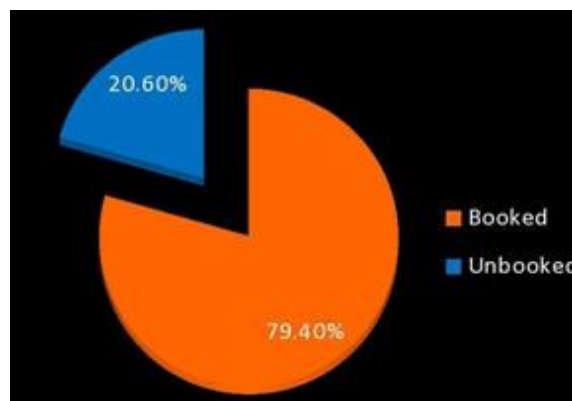
**Table 2: Parity**

Parity	Number of patients	Percentage
Para2	38	55.90%
Para3	20	29.40%
Para4	8	11.70%
Para5	2	2.90%
Total	68	100%



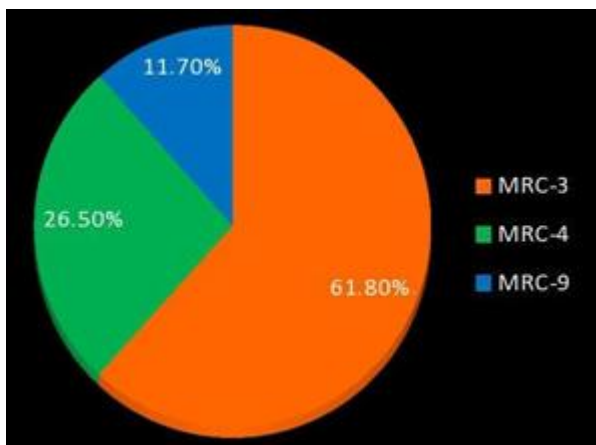
**Table 3: Booking status**

Booking status	Number of patients	Percentage
Booked	54	79.40%
Unbooked	14	20.60%
Total	68	100%



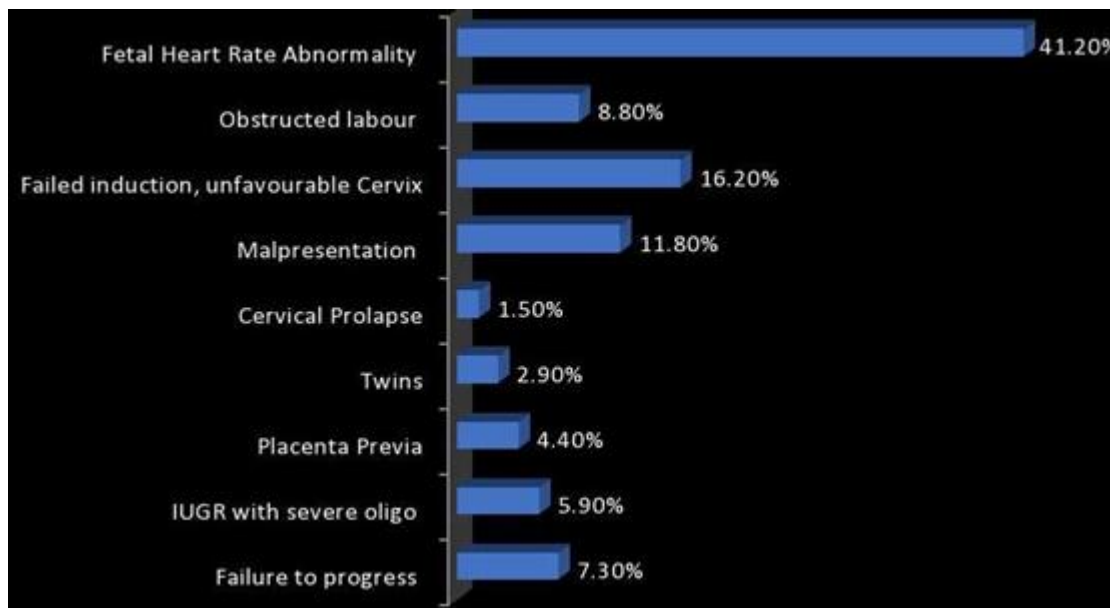
**Table 4: Classification of patients according to Robin's Criteria**

Parity	Number of patients	Percentage
MRC - 3	42	61.80%
MRC - 4	18	26.50%
MRC - 9	8	11.70%
Total	68	100%



**Table 5:** Indications of Primary Caesarean Section in Multiparous Subjects of study participants

Indication	Number of patients	Percentage
Fetal Heart Rate Abnormality	28	41.20%
Obstructed labour	6	8.80%
Failed induction, unfavourable Cervix	11	16.20%
Malpresentation	8	11.80%
Cervical Prolapse	1	1.50%
Twins	2	2.90%
Placenta Previa	3	4.40%
II - JGR with severe oligo	4	5.90%
Failure to progress (prolonged labour)	5	7.30%
Total	68	100%



**Graph 5:** Indications of Primary Caesarean Section in Multiparous Subjects

#### 4. Discussion

Poverty, illiteracy, misinformation, and a lack of understanding about accessible prenatal care and family planning methods all contribute to the problem of multiparity. A multipara who has previously delivered vaginally may nevertheless require a caesarean procedure to ensure her baby's safety. The study result founded 13.96% of multiparous women required primary caesarean delivery. The percentage was less in comparison to the previously conducted study. Hemabindu et al., (8) founded incidence was on higher side that is 40% and Desai E et al., (9) recorded 29% of total primary caesarean delivery were in multiparous women.

Most of the multiparous women requiring primary cesarian in our study belongs to Para 2 which was in agreement to the study by Radhika T et al., (10) and Somalwar S et al. (1) Most of the females in the present study were between the age group of 20 to 30 years. Somalwar S et al., (1) Eastman et and Desai E et al., (9) were in agreement with the present study findings. Parrish KM et al., the maximum number of patients was in the age group of more than 40 years, due to older childbearing women and delay in childbirth in the USA.

Obstetric admissions in our study were Para 2 and Para3. Somalwar S et al., (1) Eastman et al., (11) and Desai E et al., (9) were in agreement with the result of present study. Booked and unbooked cases in our present study are 79.4% and 20.6% respectively which is contradictory to the study by Radhika T et al., (10) who find Booked and unbooked cases 16% and 84% respectively.

The present study Abnormality in Fetal Heart Rate, Failed induction and unfavorable Cervix were the main complications which lead to primary caesarean delivery. The result was in accordance to the study by Rajarajeshwari R et al., (5) who finds 37% of multiparous women required surgery due to Abnormality in Fetal Heart Rate while in the study by Somalwar S et al. (1) Non reassuring fetal status accounts for almost 50% of cases, Desai F et al., (9) concluded the incidence of fetal distress and antepartum Hemorrhage were the highest. Radhika T et major indications for caesarean section were malpresentation, cephalo pelvic disproportion and antepartum hemorrhage.

This research stresses the need of prenatal care and attentiveness in labour management. Negligence that, most of the time necessitates surgical intervention for the welfare of both mother and baby. Above all, there is an urgent need

to advise multipara to report to the hospital as soon as possible because many of them are likely to try a home birth first and then rush to the hospital.

## 5. Conclusion

Earlier vaginal delivery provides a false feeling of security, but subsequent pregnancies may necessitate a caesarean section. Routine prenatal care with careful monitoring and analysis of cardiotocographs for problems during antenatal and intrapartumim enhance the mother and perinatal outcome. As a result, multiparous women in labour need the same level of care as primigravida women in labour.

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