# A Study of Primary Cesarean Section in Multipara

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**Abstract:** Background: Cesarean delivery is one of the most commonly performed operations today. Primary Cesarean section in multipara means first caesarean section done in the patients who had delivered vaginally once or more. Various indications for caesarean section were studied in relation to age, gravidity and maternal, fetal outcome were analyzed. Methods: It was a prospective randomized hospital based study of primary Cesarean section performed in multiparous patient attending tertiary care hospital during August 2015 to August 2016, selected through convenient sampling. Detailed history and thorough examination of the patient was done. Labor was monitored throughout and indications for Cesarean section were noted. Intraoperative details, maternal and fetal outcome were recorded. Result: Out of 1254 caesarean deliveries, 216 primary caesareans in parous women were done. The most common age group was 21-30 years. Most parous women who underwent primary caesarean section, were para 2. In parous women undergoing primary caesarean section, the number of spontaneous onset of labor was significantly more than those undergoing induction of labor. The most common indication for caesarean section in this group of patients was fetal distress. There was no neonatal mortality or adverse maternal outcome. Conclusions: Fetal distress was the most common indication for primary caesarean section in the parous woman, although malpresentation also contributed significant numbers. Primary caesarean sections in women with previous vaginal deliveries, were not associated with any significant neonatal or maternal complications.[Preeti B NJIRM 2017; 8(2):161-163]

**Keywords:** Primary caesarean section, Multipara, Fetal distress

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**Introduction:** Caesarean delivery defines the birth of a fetus via laparotomy and then hysterotomy.

There are two general types of caesarean delivery- primary refers to a first time hysterotomy and secondary denotes a uterus with one or more prior hysterotomy incisions.

There is a trend of worldwide increase in Cesarean section rates. With increased safety following introduction of modern anesthesia, blood transfusion facilities and higher antibiotics, the indications for Cesarean section are liberalized to include dystocia, placenta previa, fetal distress, BOH and others. Cesarean section is considered as a safer alternative to prolonged and difficult vaginal operative delivery to reduce maternal and perinatal morbidity and mortality.

Delivery by caesarean section is most frequently performed in nulliparous for dystocia with suspected cephalopelvic disproportion.

Multipara means those who had delivered once or more after the age of viability. It includes primipara, multipara (para 2,3,4) and grand multipara (para more than 4). Even though they have delivered once vaginally, they still may have cephalopelvic disproportion in view of pendulous abdomen with lordosis of the lumbar spine responsible for failure of the head to engage. Other obstetric complication like APH, malpresentations, obstructed labour were more common in multigravida which must be seriously considered.

The World Health Organization recommends that the Cesarean section rate should not be higher than 10% to 15%.

**Aims and Objectives**

1) To study the incidence of primary caesarean section in multipara and analysis of various related factors.
2) To know the maternal and perinatal outcome following caesarean section.
3) To know the Incidence of post-operative morbidity.

Inclusion criteria: 1) Multipara 2) Pregnancy > 37 weeks 3) Multiple pregnancy

Exclusion criteria: 1) Gestational age < 37 weeks 2) Previous LSCS

**Methods:**

- It was a prospective randomized study.
- Attending tertiary care hospital during August 2015 to August 2016.
- Selected through convenient sampling.

- Detailed obstetric history of the patients was taken at admission regarding present pregnancy and previous pregnancies and thorough examination of the patient was done.
- Per abdominal examination was done to assess the period of gestation, presentation, position, and estimated weight of the baby. Per vaginal examination was done to calculate Bishop Score, assess the adequacy of the pelvis and to see the presence or absence of membranes.
- Basic investigations were done for each case.
- Ultrasonography was done to rule out congenital anomalies, estimation of gestational age and localization of placenta.
- Decision for mode of delivery was made based on evaluation of progress of labour, fetal indications and maternal indications.
- Labor was monitored throughout.
- Decision for caesarean section was based on clinical evaluation and progress of labour.
- Intraoperative details, maternal and fetal outcome were recorded.

**Results:** During the study period, there were 1254 total cesarean section performed among them 216 were done in primary cesarean section in multipara resulting in incidence of 17.2%.

**1: Total LSCS incidence in 1 year**

| | Total deliveries | LSCS | Primary CS in multipara |
|---|---|---|---|
| No of Cases | 4132 | 1254 | 216 |
| Percentage | 100% | 30% | 5.2% |

About 216 cases of primary caesarean section done in multipara during a period of 1 year were analyzed. Among 4132 deliveries, 30% was the incidence of LSCS in general, and 5.2% was incidence of primary cesarean section in multipara.

**2: Booking status**

| Cases | Booked | Unbooked | Elective | Emergency |
|---|---|---|---|---|
| 216 | 58 | 158 | 66 | 150 |
| 100% | 26.85% | 73.14% | 30.5% | 69.4% |

Majority of the cases were Unbooked (73.14%) and referred as emergency cases (69.4%).

**3: Gravida Distribution**

| Total Cases | G2 | G3 | G4 | G5 |
|---|---|---|---|---|
| 216 | 119 | 57 | 28 | 12 |
| 100% | 55% | 26.38% | 13% | 5.5% |

Most of them were gravida-2 (55%) and gravida-3 (26.38%).

**4: Age distribution (in years)**

| Total | <20 | 21-25 | 26-30 | 31-35 | 36-40 |
|---|---|---|---|---|---|
| 216 | 38 | 110 | 47 | 11 | 10 |
| 100% | 17.5% | 50.92% | 21.7% | 5.0% | 4.6% |

Most of them were in the age group of 21-25 years (50.92%).

**5: Indications for primary caesarean section in multipara**

| Indications | No of Cases | Percentage |
|---|---|---|
| Fetal Distress | 54 | 25% |
| Antepartum Hemorrhage | 33 | 15.2% |
| Pre-Eclampsia | 26 | 12.0% |
| CPD | 18 | 8.3% |
| Severe Oligohydramnios | 12 | 5.5% |
| Malpresentation | 30 | 13.8% |
| Obstructed Labor | 12 | 5.5% |
| Induction Failure | 4 | 1.8% |
| Cord Prolapse | 2 | 0.9% |
| NPOL | 5 | 2.3% |
| Prolonged Prom | 8 | 3.7% |
| Medical Disorders | 2 | 0.9% |
| IUGR | 10 | 4.6% |

Indication of 25% cases were fetal distress followed by antepartum hemorrhage (15.2%).

**6: Incidence of various malpresentations**

| Type | Breech | Transverse | Twins | Compound presentation | Mento – posterior |
|---|---|---|---|---|---|
| 30 | 14 | 04 | 04 | 02 | 6 |

Among various type of malpresentations, breech is the most common cause of caesarean section.

**7: Various Causes of Maternal Morbidity**

| Causes | No. of Cases | Percentage |
|---|---|---|
| Wound sepsis | 12 | 5.5% |
| Abdominal distension | 30 | 13.8% |
| Pyrexia | 12 | 5.5% |
| U.T.I. | 10 | 4.6% |
| P.P.H. | 17 | 08% |
| Puerperal Psychosis | 02 | 0.9% |

Wound sepsis is the most common cause of maternal morbidity.

**8: Birth weight (in kilograms)**

| Weight | <2 | 2-2.5 | 2.5-3 | >3 |
|---|---|---|---|---|
| No. of cases | 20 | 38 | 147 | 10 |

Most of the baby birth weight falls between 2.5-3 kilograms.

**9: Perinatal outcome**

| Cases | IUD + Stillbirth | NICU Admission | APGAR>7 |
|---|---|---|---|
| 216 | 20 | 44 | 152 |

- Causes of IUD were abruptionand obstructed labor.
- Causes of NICU admission were pre-term/low birth weight,fetal distress with meconium stained liquor, resuscitation with low APGAR, respiratory distress syndrome, GDM with hypoglycemia.

**Discussion:** Multiparity is a problem associated with poverty, illiteracy, ignorance, and lack of knowledge of the available antenatal care and family planning methods. A multipara who has earlier delivered vaginally may still require a caesarean section for safe delivery.

The present study deals with the evaluation of Cesarean section indications and outcome among multigravida who had a previous vaginal delivery.In the present study, maximum number of women undergoing primary Cesarean section were in the age group of 21-25 years (50.92%). This may be due to the trends of early marriage and lack of education resulting in high fertility in early ages. The most common indication for primary Cesarean section rate in multigravidain our study was fetal distress accounting for 25% of the cases it was more than that observed in Palanichamy study (9.2%) and Sikdarstudy (18.8%). Antepartum hemorrhage is common in multiparous women with rise in incidence above 35 years of age and with high birth order pregnancies. The incidence of APH in the present study was 15.2%, which was less than Sikdar et al (19.6%), and Jacob et al (17.30%).

The factors responsible for malpresentations were lax and pendulous abdominal wall in multigravida, imperfect uterine tone, and extreme uterine obliquity. Ultrasound examinations and doppler studies have helped the obstetrician to diagnose the early onset of IUGR. However, APH and fetal compromise which contributed to the high cesarean section rate.

**Conclusion:** From the above study, it is very clear that many unforeseen complications occur in women who previously had a normal vaginal delivery. Multiparity in our society is not by choice. This result in a high birth rate and so many young women become grand multipara. This process causes short birth intervals, eventually jeopardizing the health of the mother and her offspring. This study reemphasizes the need of antenatal care and thorough care and vigilance in the management of labor. Though vaginal delivery is always safer than C-section, difficult vaginal delivery and obstructed labor carries more maternal morbidity and perinatal mortality when compared to elective C-section. Previous vaginal delivery gives the patient as well as her relatives a false sense of security. In many cases, a caesarean becomes mandatory. The fact that a multipara has had one or more vaginal deliveries should be regarded as an optimistic historical fact, not as a diagnostic criterion for spontaneous delivery of the pregnancy at hand. Ultimately, our goal should be a healthy new born on a lap of healthy mothers.

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