

# Study of primary caesarean section in multiparous women

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## Abstract

**Background:** Caesarean section is most commonly performed life saving operative procedure in woman and newborn. Knowledge of need of caesarean section in multiparous women will reduce the maternal and foetal complications. **Aim and objective:** To study the indication, maternal and foetal outcome in primary caesarean in multiparous women. **Methodology:** Present study was a prospective study carried out on multiparous women who underwent caesarean section for the first time who had delivered vaginally in previous pregnancies. Data was collected with pre tested questionnaire. Data included demographic data, clinical history and clinical examination. **Results:** Majority of the patients were from the age group of 21-25 years (53%) followed by 26-30 years (28%). Majority of the patients were second gravida (57%) followed by third gravida (28%). Most common indication for caesarean section was foetal distress (19%) followed by malpresentations (14%) and oligohydramnios (14%). Most commonly observed complication was atonic PPH which was observed in 7% patients. There were 2 still births.

**Key Word:** multiparous women.

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## INTRODUCTION

Caesarean section is commonly performed surgery in obstetrics. As medical science and especially obstetrics has evolved over the recent years, there has been a parallel and steady increase in the rate of caesarean births. Primary caesarean section means first caesarean section done in the patients who had delivered vaginally once or more. Multipara means a women delivered at least once. Grandmultipara means a woman who delivered for more than or equal to 5. Grandmultipara are prone for dangerous complications so Dr. Bethal Soloman (1934)<sup>1</sup> coined the phrase “Dangerous multipara” and Feency *et al.*<sup>2</sup> Prepared

the term “Unpredictable multipara”. Multipara may still have cephalo pelvic disproportion even though they have delivered a full-term child vaginally. Multipara are susceptible for various complications during antenatal period and intranatal period. Antenatal complications are abortion, preeclampsia, antepartum hemorrhage, multiple pregnancy and polyhydramnios. It is also associated with some medical complications like anaemia, hypertension, diabetes mellitus and cardio vascular diseases. Intrapartum complications are malpresentation, cephalopelvic disproportion, uterine inertia, ruptured uterus, retained placenta and post-partum haemorrhage. All these complications may be indication for caesarean section, so these indications should be considered in multipara.<sup>3,4</sup> Caesarean section are more safer due to availability of antibiotics, blood and blood products, improved surgical and anaesthetic techniques. It is associated with reduced maternal and perinatal morbidity and mortality.<sup>5</sup> Present study was conducted to study the indication, maternal and foetal outcome in primary caesarean section in multiparous women.

## MATERIAL AND METHODS

Present study was a prospective study carried out at tertiary health care centre. Study population was Multiparous women who underwent caesarean section for the first time who had delivered vaginally in previous pregnancies.

**Inclusion Criteria:** 1. All multigravida with pregnancy of > 28 wks gestation (gravida 2 and above), each of whom has had a previous vaginal delivery of >20 wks. 2. Patients willing to participate in the study

**Exclusion Criteria:** 1. Women with previous abortions and previous caesarean sections 2. Women with previous uterine surgery 3. Women with previous hysterotomy Study was approved by ethical committee of the institute. A valid written consent was taken from the patients after explaining study to them. Data was collected with pre tested questionnaire. The patients reporting directly to labor room in various stages of labor as well as those who were admitted in the antenatal wards for various high-risk factors and taken up for elective caesarean section were interviewed. Detailed history was taken with reference to present pregnancy and obstetric history. A thorough clinical examination was done including pelvic examination. All patients underwent basic investigations and ultrasonography. Indication for caesarean delivery, colour of liquor, puerperium; weight of baby were noted. Maternal and foetal outcome was noted. Data was subjected to statistical analysis using Statistical package for social sciences (SPSS v 21.0, IBM).

## RESULTS

Majority of the patients were from the age group of 21-25 years (53%) followed by 26-30 years (28%). Patients in the age group of 15-20 years were 12%. Patients above age of 30 years were 7%. Table 2 shows distribution of patients according to gravida. Majority of the patients were second gravida (57%) followed by third gravida (28%). Patients with gravida 4 were 11 and patients with 5 or above were 4%. In our study, majority of the patients were operated in the gestational age of 37-40 weeks (63%) followed by patients with gestational age above 40 weeks (27%). Patients with gestational age 34-36 weeks and 32-34 weeks were 7% and 3% respectively. Out of 100 patients 93% patients were given trial of labour and they needed caesarean section remaining 7% patient undergone elective caesarean section. Fig 1 shows indications for caesarean section in our study. Most common indication for caesarean section in our study was foetal distress (19%) followed by malpresentations (14%) and oligohydramnios (14%). CPD (cephalo pelvic disproportion) and PROM (Premature Rupture Of Membrane) with failed induction were the indications in 13 % patients each. Other indications were obstructed labour (9%), severe PIH (6%), BOH in previous pregnancy (6%), twins (3%), placenta

previa (2%) and abruption placenta (1%). Intra operative findings were meconium stained liquor, postpartum hemorrhage, thinned out lower segment and extension of incision. Out of 100 patients 42 patients needed intra operative or immediate postoperative blood transfusion. We studied maternal outcome in terms of complications during or after caesarean section. Out of total 100 patients 84% patients were healthy post operatively. Most commonly observed complication was atonic PPH which was observed in 7% patients. Puerperal pyrexia was observed among 5% patients. Wound gaping and Urinary Tract Infection was observed in 2% patients each. No maternal death was observed in our study. We studied the foetal outcome. Out of 100 patients, 3 patients gave birth to twins. There were 2 still births. One of the still birth was in patient of abruptio placenta and other in patient with obstructed labour. Among the remaining 101 neonates majority were with birth weight of 2-3 kgs (50.49%) followed by more than 3 Kgs (41.59%). Low birth weight neonates were 7.92% of the survived. (table 4)

**Table 1:** Distribution of patients according to age group

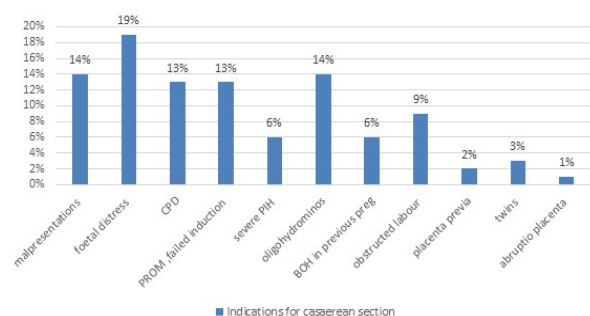
Sr no	Age group (years)	No of patients	Percentage
1	15-20	12	12%
2	21-25	53	53%
3	26-30	28	28%
4	>30	07	7%
5	<b>Total</b>	<b>100</b>	<b>100%</b>

**Table 2:** Distribution of patients according to gravida

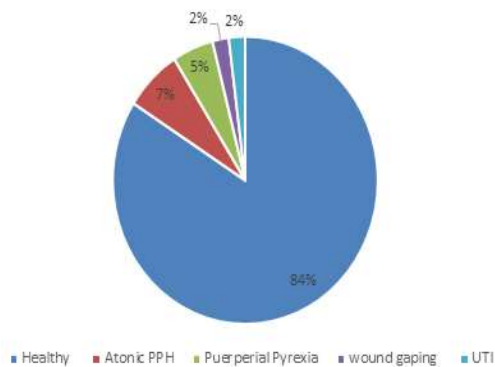
Sr no	Gravida	No of patients	Percentage
1	2	57	57%
2	3	28	28%
3	4	11	11%
4	≥ 5	04	4%
5	<b>Total</b>	<b>100</b>	<b>100%</b>

**Table 3:** Distribution of patients according to gestational age

Sr no	Gestational age	No of patients	Percentage
1	32-34 wks	03	3%
2	34-36 wks	07	7%
3	37-40 wks	63	63%
4	Post dated (> 40 wks)	27	27%
5	<b>Total</b>	<b>100</b>	<b>100%</b>



**Figure 1:** Distribution of patients according to indications for caesarean section



**Figure 2:** Distribution of patients according to maternal outcome

**Table 4: Distribution of patients according to birth weight**

Sr no	Birth weight	No of patients	Percentage
1	< 2 kg	08	7.92%
2	2-3 kg	51	50.49%
3	>3 kg	42	41.59%
4	Total	101	100%

## DISCUSSION

In our study, Majority of the patients were from the age group of 21-25 years (53%) followed by 26-30 years (28%). Similar findings were seen in Himabindu *et al.*<sup>6</sup> Eastman *et al.* study where majority of the patients (40%) belonged to 25-29 years of age.<sup>7</sup> Majority of the patients were second gravida (57%) followed by third gravida (28%). Patients with gravida 4 were 11 and patients with 5 or above were 4%. Similar to our study, Sethi P *et al.*<sup>8</sup> also reported the similar results 35% gravid II, 30% of gravid III status. Similar finding were seen in Desai *et al.*<sup>9</sup> Most common indication for caesarean section in our study was foetal distress (19%) followed by malpresentations (14%) and oligohydramnios (14%). Similarly in the study by Desai *et al.*,<sup>9</sup> fetal distress (25.58%), antepartum haemorrhage (APH, 22.09%), CPD (19.77%) and abnormal presentations (17.44%) were the most common indications for caesarean sections. Similar results were seen in Jyothi H. Rao *et al.*<sup>10</sup> and P. Himabindu *et al.*<sup>6</sup> Out of total 100 patients 84% patients were healthy post operatively. Most commonly observed complication was atonic PPH which was observed in 7% patients. Puerperal pyrexia was observed among 5% patients. Wound gaping and Urinary

Tract Infection was observed in 2% patients each. No maternal death was observed in our study. This may be due to availability of antibiotics, blood transfusion facilities, and safe methods of anaesthesia and good intra and postoperative care. Similar results were observed in Rupal S *et al.*<sup>11</sup> Good antenatal and intra partum care and early referral can reduce the maternal and perinatal morbidity and mortality in multipara.

## CONCLUSION

Early recognition of complications in multipara and proper management including caesarean section will improve maternal and foetal outcome.

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