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## STUDY OF PRIMARY CAESAREAN SECTION IN MULTIPAROUS WOMEN

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**OBJECTIVES:** It is a study of the analysis of cases where caesarean section was done for the first time in parous women who had previous vaginal delivery of a viable neonate. The various indications, incidence according to age, gravidity, maternal and fetal outcome were studied.

**METHODS:** It is a prospective study of over 200 cases of caesarean section done for the first time in parous women admitted at Government General Hospital, Basaveshwar Teaching and General Hospital, Sangameshwar Hospital, Gulbarga for a period of 18 months. **RESULTS:** The primary caesarean section rate was 10.28 percent. Maximum incidence of caesarean section was seen in the age group of 25-29 years and majority belonged to second and third gravid. 68 percent of women did not receive any antenatal care. Malpresentation, ante partum haemorrhage, CPD and fetal distress were most common indications for caesarean section. Post operative morbidity was seen in 14 percent of cases. There was no maternal mortality seen. Perinatal mortality rate was 105 for 1000 live births. **CONCLUSIONS:** It is clear from our study that Primary caesarean section in parous women is not uncommon. Though to a small extent, they are contributing to rise in total caesarean section rates seen. A parous woman needs good obstetric care to improve maternal and neonatal outcome and still keeping caesarean section to a lower rate.

**KEY WORDS:** caesarean section, parous women, multiparous

**INTRODUCTION:** There is worldwide increase in caesarean section rates.<sup>1,2</sup> Chile and Brazil have the highest caesarean section rates in the world being 40% and 37% respectively.<sup>3</sup> Mean caesarean rate in Asia is estimated to be 15.9% and 17.8% in respectively. <sup>2</sup> Most of the studies on caesarean section on parous women with previous normal delivery dates back to 1960's and 1970's where caesarean rates were low as 2.5-11.3% annually.<sup>4,5,6,7,8,9,10</sup> A recent study has demonstrated that the primary caesarean rate in 2002 was 13.3% among parous women as compared to 18% among nulliparous women in United States.<sup>4</sup> The relative ease with which some multiparous are delivered in the presence of faulty positions and presentations may account for the false sense of security.<sup>11</sup> The limited research in this area may be due to this false notion. It is for these reasons, we have examined trends in primary caesarean rates among parous women with previous normal vaginal delivery with respect to indications, maternal age and parity and the outcome.

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Conducted study with primary objective of knowing Primary caesarean rate among parous women with previous normal vaginal delivery and with a secondary objective to know the incidence according to age and gravidity and study the maternal and fetal outcome.

**MATERIALS AND METHODS:** A cross sectional study of 200 cases of primary cesarean sections among parous women who had a previous normal vaginal delivery admitted at Basaveshwar teaching and general hospital, Government hospital, Sangameshwar hospital, Gulbarga for a period of 18 months. Primary cesarean rate was defined as number of primary cesarean deliveries among parous women who have not had a previous cesarean section. Women with previous abortion or non-viable pregnancies and with previous cesarean sections were excluded.

Definitions included were,

Total caesarean rate = total number of births by caesarean section  $\times$  100

Total number of births

Primary caesarean rate = number of births to women with no previous caesarean  $\times$  100

Number of primary caesarean births + number of vaginal births (not VBAC).

A pretested proforma for parameters like age, parity and other socio demographic factors obtained. Detailed history taken..Complete general physical and pelvic examination done. All basic investigation with special investigation like ultrasound, cardiotocography done when required. Progress of labour was assessed by partogram. All intraoperative details recorded systematically and complication managed promptly. Postoperative monitoring of complications was done. Fever defined as excess of 38°C taken 8 hours apart excluding first 24 hours. Post operative criteria for urinary tract infection, endometritis was taken as positive urinary and cervical culture respectively. Mothers with uneventful postoperative recovery were discharged on POD-6 and postnatal visit scheduled after 4 weeks.

**OBSERVATION:** There were 6600 deliveries during study period. Our analysis excluded primiparous women, women with previous cesarean delivery, VBAC deliveries, women with gestational age <28 weeks. We were left with 200 parous women who had primary cesarean section. Primary caesarean rate among parous women in our study was 10.28%. Around 41.5% parous women belonged to age group 25-29 years and 0.5% women were above 40 years age. 19.5% were grand multiparous women. 68% parous women did not receive regular antenatal care. Emergency cesarean delivery performed in 96% of cases. The most common indications being malpresentation (33.5%) followed by antepartum haemorrhage, cephalopelvic disproportion and fetal distress. Medical disorders complicating pregnancy accounted for 10% of total cesarean sections. In grand multiparous women, malpresentation and cephalo pelvic disproportion were commonest indication for cesarean section. 8% had intraoperative complication and subtotal hysterectomy performed in one case for atonic PPH.

Following cesarean section 14% women had postoperative morbidity. Wound infection being the commonest accounting for 7.5%, followed by febrile morbidity (3.5%), urinary tract infection (2.00%), respiratory tract infection (0.5%) and secondary PPH (0.5%). We did not have any maternal mortality.

There were 14 still births. Obstetrical causes leading to it included placenta previa, abruption, obstructed labour and cord prolapse. There were 33NICU admissions in view of septicemia,

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meconium aspiration syndrome, convulsions and congenial anomaly. Early neonatal death was seen in seven babies, PNMR being 102.4/1000 births.

**DISCUSSION:** Total cesarean rate in our study was 29.46%. In one of the few studies on the primary cesarean rate among parous women we observed that rate was 10.28%. The increase is proportional to that of increase in general cesarean rates observed. Recent reports are showing that cesarean section rates are exceeding the World Health Organization threshold of 15% are more common in private fee for service hospitals than in public hospitals. Particularly in Asia and South America differences were found to be more than 50 percent in some instances.<sup>12</sup> A study in India has shown total caesarean rates in the public, charitable and private sectors were 20 %, 38% and 47% respectively. <sup>3</sup> Another study demonstrated that primary cesarean rate among parous women in 2002 was 13.3% as compared to 18% in nulliparous women, contradicting the prevailing assumption that cesarean section rates among parous women is low and is of no much concern as previous vaginal delivery is protective against future cesarean sections. <sup>4</sup> Study conducted in United States between 1991-2002 showed rates of 13.3 percent. <sup>13</sup> Study done in Netherlands observed caesarean rates in multiparous women to be 3.36 percent in 1983 gradually increased over a period of years to 5.33 percent in 1992.<sup>14</sup> Increase is quite significant.

Most common indication in our study was malpresentation and antepartum hemorrhage similar to other studies by Jacob & Bhargava.<sup>5,9</sup> In another study , antepartum or intrapartum fetal distress was leading indication in 41 percent of women, failure to progress being second cause. <sup>2</sup> Fetal distress in our study was 17 percent. The electronic fetal monitoring which is commonly used to detect fetal distress is known to have poor specificity resulting in increased in number of cesarean sections carried out for fetal distress.<sup>2,13,15,16</sup> Fear of litigation increases the use of continuous fetal monitoring and intervention early in labour.<sup>17,18</sup>

In contrast to other studies where cesarean section rates were proportional to increase in maternal age, in our study 41.5 percent belonged to age group 25-29 years.

Wound infection (7.5%) was common post operative morbidity seen in our study, followed by pyrexia and urinary tract infection. Infection was found to be commonest cause of morbidity after cesarean section with rates 13%-65%.<sup>19</sup> Rate of complication though low for elective compared to emergency cesarean section still exceed those of vaginal delivery in many reports.<sup>20</sup> A large study in Canada showed significant difference in maternal morbidity between planned caesarean and planned vaginal delivery. It was 27.3 to 9.0 for 1000 deliveries respectively.<sup>21</sup>

In our study we did not have any maternal mortality Although cesarean section has a mortality rate <1%, in many developing countries it is 10-20 times greater with cesarean section compared to vaginal delivery.<sup>19</sup> No significant difference in maternal mortality was found between elective cesarean delivery and planned vaginal delivery .<sup>20,21</sup>

PNMR in our study was 102.4/1000 live births which is quite high. The contributory factor being inadequate antenatal care (68% of parous women did not have regular antenatal check up). Emergency cesarean section performed in 96% of cases which added to the risk.

In summary, global increase in cesarean section rates may be due to combination of factors: increased safety of procedure, increased use of fetal monitoring and medico legal situations and fear of malpractice suits,<sup>14</sup> obstetric indications, <sup>15</sup> maternal request.<sup>22,23,24</sup> Increase in cesarean section among parous women is consistent with increase in total caesarean section rate. Optimum maternal

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and perinatal outcome depends on good obstetric practice rather than caesarean section.<sup>25</sup> Caesarean section should be done only when there is medical indication.<sup>1</sup>

In this study we have seen that Primary Caesarean section is not uncommon. Though to a small extent, they are still contributing to rise in total caesarean section rate seen today. Parous women who have had successful previous vaginal delivery need good obstetric care in future pregnancy, as it does make them safe against future caesarean sections. Routine antenatal care with proper monitoring for complications both during antenatal and intrapartum improves chance for improved maternal and perinatal outcome with low caesarean rates.

INDICATIONS	PERCENTAGE (%)
Malpresentation	33.5
Antepartum hemorrhage	19.5
CPD	18.5
Fetal Distress	17.0
Medical disorders	11.5

Table1: Indications for Primary Caesarean Sections

Morbidity	Number of cases
Wound Infection	15
Pyrexia	7
Urinary tract infection	4
Endometritis	0
Paralytic Ileus	0
Respiratory tract infection	0
Burst abdomen	0
Others	1
Percentage	14%

Table 2: Post-Operative Morbidity

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