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Original Research Article

Indications of primary caesarean section in multiparous women in patients of rural area of Western Maharashtra, India

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ABSTRACT

Background: Caesarean section is commonly performed operation in women in last few decades and can be life saving for the child, the mother or both in certain cases. Primary caesarean section in the multipara means first caesarean section done in the patients who had previously delivered vaginally once or more. Aims and objectives of this study were to know the incidence and various indications of primary caesarean section in multipara.

Methods: This was a prospective study of primary caesarean section in multipara women admitted at tertiary care hospital in western rural Maharashtra during the period of 6 months from January 2018 to June 2018. Multipara with pregnancy of >28 weeks gestation (gravida 2 and above), each of whom has had a previous vaginal delivery of >20 weeks gestation were included. Women with previous abortions and previous section were excluded.

Results: Total no. of deliveries during this period were 4648. Total 1705 sections were performed during the same period. Thus, the incidence caesarean sections are 36.68%. Out of these sections 194 sections were performed in multipara for the first time, thus giving the incidence of 0.42% of total deliveries and 11.38% of total caesarean sections. Most common indication for caesarean section in multipara was malpresentation (19.6%) followed by foetal distress (16.49%) and severe pre-eclampsia (13.4%).

Conclusions: Present study concludes that proper antenatal care should always be given to multipara even though there was history of previous vaginal deliveries.

Keywords: Indications of primary caesarean section, Multipara, Primary caesarean section

INTRODUCTION

Caesarean delivery is defined as birth of a fetus through incision in the abdominal wall (laparotomy) and uterine wall (hysterotomy).¹ Caesarean section is one of the most commonly performed operation in women and can be life saving for the child, the mother or both in certain cases. During last few decades incidence of caesarean section has gone up manifold. Caesarean births have become safer due to improved anaesthetic and surgical

techniques, availability of broad-spectrum antibiotics, blood and blood products. The dangerous procedures like high forceps, craniotomy, symphysiotomy etc., are no more performed and are replaced by safer procedures like caesarean section. Caesarean section is considered as a safer alternative to difficult vaginal deliveries in order to reduce maternal and perinatal morbidity and mortality.²

Multipara means those who had delivered once or more after the age of viability i.e. 28 weeks.³ Primary

caesarean section in the multipara means first caesarean section done in the patients who had previously delivered vaginally once or more.

There are chances of cephalopelvic disproportion in multipara even after having previously full-term vaginal deliveries. Since the foetus increases in size with multiparity, the size of foetus and foetal head should be carefully estimated. In multiparous patients, malpresentations are favoured by a pendulous abdomen and lordosis of the lumbar spine and in any case, that is usual for the head not to engage in the pelvis until the onset of labour.⁴

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.⁵ It is a common belief amongst public that once a mother delivers her child or children normally, all her subsequent deliveries will be normal. As a result, such multiparous mothers often neglect routine antenatal check-ups. It is for these reasons that attention has been directed to the indication for caesarean section in women who have previously delivered vaginally.⁶

There are several indications of caesarean sections in multipara, chiefly severe contraction of the pelvis, other forms of dystocia, major degree of placenta previa and severe preeclampsia and eclampsia.⁷ The other indications include fetal distress, bad obstetric history (BOH) and difficult vaginal operative delivery.

Keeping this in mind, present study has been done to study the indications of caesarean section being done in multigravida who had earlier delivered successfully by vaginal route.

Aims

- To know the incidence of primary caesarean section in a multipara.
- To know the various indications of primary caesarean section in multipara.

METHODS

This was a prospective observational study of all the cases of primary caesarean section in multipara admitted at tertiary care hospital serving rural population of India. Permission from ethical committee of the institution was obtained. Study was done in parous women who had previous vaginal deliveries.

Inclusion criteria

- All multigravida with pregnancy of >28 weeks gestation (gravida 2 and above), each of whom has

had a previous vaginal delivery of >20 weeks gestation.

Exclusion criteria

- Women with previous abortions and previous caesarean section.

In this study, 194 cases of primary caesarean sections in multipara are reviewed over a period of 6 months from January to June 2018, admitted to the obstetrics department. Total number of caesarean sections during 6 months were 1705. While 194 out of these were primary caesarean sections performed in multipara patients. All cases are studied with respect to age, parity, past and present obstetric history, clinical findings on admission and progress of labour. Due attention has been paid to operative findings, gestational period at which the operation has performed, whether elective or emergency, whether done after trial of labour etc. Likewise, maternal and foetal outcomes were studied.

Statistical analysis

All statistical analyses are expressed in percentage (%).

RESULTS

Total number of deliveries during this period were 4648. Total 1705 sections were performed during the same period. Thus, the incidence caesarean sections are 36.68%. Out of these sections 194 sections were performed in multipara for the first time, thus giving the incidence of 0.42% of total deliveries and 11.38% of total caesarean sections.

Table 1: Incidence of primary LSCS in multipara among total deliveries and total LSCS.

	No. of cases	Percentage
Total deliveries	4648	100%
LSCS	1705	36.68%
LSCS in multipara	194	11.38% of total LSCS and 0.42% of total deliveries

In the present series malpresentation (19.6%) seem to be the most common indication for caesarean section followed by foetal distress (16.49%), Severe preeclampsia (13.4%), malposition's (11.85%), cord accidents (10.8%), antepartum haemorrhage (8.76%), severe oligohydramnios (6.7%) and other indications as shown in Table 2.

Almost 1/5 sections were for malpresentations. Out of these breech was the most common indication. Out of 38 cases for malpresentations, 27 sections i.e. 71% were performed for breech, 7 for transverse lie, (one case was

with hand prolapse). 2 sections for oblique lie and 2 for compound presentations as shown in Table 3.

Table 2: Indications of primary caesarean section in multipara.

Indications	Total	Percentage
Malpresentation	38	19.6%
Foetal distress	32	16.49%
Severe preeclampsia	26	13.4%
Malposition's	23	11.85%
Cord accidents	21	10.8%
Antepartum haemorrhage	17	8.76%
Severe oligohydramnios	13	6.7%
Prolonged PROM	9	4.64%
Twins	5	2.58%
Bad obstetric history	3	1.55%
Post-dated pregnancy	2	1.03%
Pregnancy with heart disease	2	1.03%
Failure of Induction	2	1.03%
Severe IUGR	1	0.5%
Total	194	100%

Table 3: Incidence of various malpresentations.

Types	Breech	Transverse lie	Oblique lie	Compound presentation	Total malpresentations
No. of cases	27	7	2	2	38

Out of 23 cases of malposition's, 8 sections were performed for brow presentation (34.8%). 4 sections for (17.4%) persistent occipitoposterior positions, 4 sections (17.4%) for deflexed head, 7 sections i.e. 30.43% for deep transverse arrest as shown in Table 4.

Table 4: Incidence of various malposition's.

Malposition's	No. of cases	Percentage
Brow	8	34.8%
Deep transverse arrest	7	30.43%
Persistent occipitoposterior position	4	17.4%
Deflexed head	4	17.4%

DISCUSSION

In the present study, total 4648 deliveries were conducted in our hospital over a period of 6 months from January 2018 to June 2018. Out of these, total 1705 (36.68%) deliveries were conducted by LSCS (Table 1). This finding is similar to other studies conducted by Rajupt N et al, (37.39% LSCS rate), Himabindu P et al, (40.55%

LSCS rate).^{7,8} Incidence of caesarean sections is more in present series because of the factors mentioned previously. Pravara rural Hospital being tertiary centre, large no. of patients is referred here from huge drainage area. Usually these patients are referred here after trial at multiple places or they are in bad condition. As more attention is focused on infant survival and prevention of trauma to the child during vaginal delivery, the number of caesarean sections is increasing.

Out of 1705 LSCS cases, 194 LSCS were performed as Primary caesarean section in multipara. Out of these 69 (35.55%) were unbooked patients.

As per Table 2, malpresentation is most common indication for primary caesarian section in multipara. Out of these breech was the most common indication. In the present series caesarean section was performed in 32 cases out of 194 patients for foetal distress per se which gives an incidence of 16.49% and is second Leading cause in present series. This is because of electronic foetal monitoring. 26 out of 194 sections were performed for severe preeclampsia, standing third in the series. Though this condition is more common in primigravida's, it is common in 2nd and 3rd gravidas, either occurring for the first time or recurring. In this series there was one case of eclampsia and another was impending eclampsia.

As per Table 4, malposition's form 4th common cause for primary caesarean sections among multipara. 23 sections out of 194 (11.85%) sections were for this indication. Similarly, it forms the main indication for the most commonly used terminology-failure of descent. Out of 23 cases of malposition's, 8 sections were performed for brow presentation. (34.8%). 4 sections for (17.4%) persistent occipitoposterior positions, 4 sections (17.4%) for deflexed head, 7 sections i.e.30.43% for deep transverse arrest Brow presentation is due to any factor which promotes extension or which prevents flexion of head. Multiparity predisposes to brow presentation due to pendulous abdomen which causes the back of the foetus to hang forward or late rally in same direction as occiput points, thus causing extension of cervical and thoracic spines. At the same time foetal axis displaces from birth canal. All these conditions can be diagnosed by failure of descent of presenting part, failure of rotation of occiput, prolonged 1st stage as seen on partogram, associated maternal and foetal distress.

Cord accidents ranks 5th in present series. Total 21 sections i.e. (10.8%) were performed for this indication. This indication become common since the introduction of ultrasound, especially color one 20 sections were performed for either 2 or 3 loops of cord round the neck. One section was performed for cord presentation. There was no case of cord prolapse. 17 patients i.e.8.76% sections were undergone LSCS due to antepartum hemorrhage which is the 6th common indication. Out of these 13 sections were performed for placenta previa and 4 for abruptio placentae. 4 patients had central placenta

praevia, 5 had partial placenta praevia, 3 had marginal placenta praevia and one had posterior placenta.

Oligohydramnios ranks 7th in order for indications of sections in present study. Oligohydramnios is quite common condition where amniotic fluid is deficient to the extent of 200 ml at term. Sonographically it is defined when maximum vertical pocket is less than 2 cms or amniotic fluid index is less than 5 cms. This indication was added to the indications for caesarean section after the introduction of sonography to obstetric practice. Before that it was suspected clinically eg. size of uterus smaller than expected uterus full of foetus. Prolonged premature rupture of membranes ranks 8th in position in present series. Nine sections ie.4.64% sections were performed for this indication. In this condition we have to do section to avoid neonatal sepsis, maternal chorioamnionitis, dry labour, cord prolapse etc.

The 7 sections were performed in present series for twins giving an incidence of 3.6%. Usually sections are done in twins for obstetric indications, twins with complications eg. IUGR, conjoint twins, monoamniotic twins, collision of both heads at brim preventing engagement. Other causes of primary caesarean section among multipara include bad obstetric history, postdated pregnancy, pregnancy with heart disease, failure of Induction and severe IUGR.

CONCLUSION

Multipara especially grand multipara belong to high risk group who may have many obstetric complications which were frequently over looked due to false sense of security created by previous vaginal deliveries. Present study concludes that proper antenatal care should always be given to multipara even though there was history of previous vaginal deliveries. Though vaginal delivery is safer than caesarean section, difficult vaginal delivery and obstructed labour carries more morbidity and perinatal mortality when compared to elective caesarean section.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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