

Original research article**A study on indications of primary caesarean section in multigravida****¹Eslavath Lavanya Bai, ²Sahana PR, ³Chandana MH, ⁴Chandrashekar K, ⁵Vijaya Harsoor**¹Consultant in RDT hospital Bathalapalli, Karnataka, India²Assistant Professor, Department of OBG, RIMS, Raichur, Karnataka, India³Assistant Professor, Department of Anesthesiology, VIMS, Ballari, Karnataka, India⁴Assistant Professor, Department of OBG, VIMS, Ballari, Karnataka, India⁵Retired Professor, Department of OBG, VIMS, Ballari, Karnataka, India**Corresponding Author:**

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Abstract

The overall cesarean delivery rate increased progressively in the United States each year between 1965 and 1988, rising from 4.5 to almost 25% (United states public health service, in 1991). In 1998 it has been 21.2%. Other countries have also demonstrated this trend. A Prospective study of 115 cases of primary caesarean section in multigravida admitted in Department of Obstetrics and Gynecology for a period of 1 year. Medical Conditions in which the most common disorder was HDP (29.3%) and second most common was APH (24.4%). These two were most common indication for preterm births and perinatal morbidity. The most common indication for caesarean section in multigravida Fetal distress (35.7%), Malpresentation (27.8%) and breech presentation was most common (11.3%).

Keywords: Indications, primary caesarean section, multigravida

Introduction

According to a study by Indian council of medical research (ICMR), the incidence of The incidence of cesarean section in Indian hospitals varies widely with marked recent upward cesarean sections is 25.4% for the years 1998-1992 ^[1].

The overall cesarean delivery rate in the United States has increased since the 1960s, reaching a high of 31.1% by 2006. The only exception to this trend occurred between 1989 and 1996, when the rates declined slightly before resuming their long term upward trend Likewise, by 2005, the primary cesarean rate for all pregnancies had risen to 24.3% and accounted for more than one half of the observed increase in the overall rates ^[2].

The overall cesarean delivery rate increased progressively in the United States each year between 1965 and 1988, rising from 4.5 to almost 25% (United states public health service, in 1991). In 1998 it has been 21.2%. Other countries have also demonstrated this trend.

The multipara in labor is usually known to have successfully completed one or more normal deliveries. The course of her labour is often rapid, delivery is frequently spontaneous and the outcome uncomplicated, with no damage to the baby or the mother. The attitude engendered by this usually fortunate combination of events is one of indifference so that the case of the multipara in labour are frequently assigned to the least experienced of the available personnel. ²⁸

When complications do arise during the course of labor their recognition may therefore be delayed with disastrous results ^[3].

The primigravida uterus tends to react to mechanical difficulty by weakened action and rarely undergoes spontaneous rupture. Whereas the uterus of multipara contracts more violently, the Phase of labor is quicker and rupture is real danger. Further in a primigravida the course of cervical dilatation provides reliable reflection of progress of labour. in the presence of labour there is presence of mechanical difficulty but is not so in multipara.

Obstructed labour in multipara is accompanied by either prompt or slow dilatation of the cervix. The obstetrician has to rely on other evidence of mechanical difficulty, level of head, degree of moulding and character of uterine contractions ^[4].

The impression of a large infant, especially when accompanied by poor labour and lack of progress should alert one to possible disproportion.

Arrest of dilatation in active phase of labour is a strong signal of disproportion. It is the impression of the same author that another factor is involved, namely the philosophical approach of the obstetrician in handling disproportion in the multipara. A cesarean section for Cephalo pelvic disproportion in the primipara for indications like large fetus, unengaged head, in breech presentation, Diabetes, severe

toxemia in elderly primi or in those with poor obstetric history [5].

However in the multipara, the obstetrician is embarrassed sometimes to resort to a cesarean section for disproportion alone because of previous vaginal deliveries. Unwillingness to increase the primary cesarean section rate can at times be a deterrent [6].

De lee, stressed the art of obstetrics “Is it the art concerned with effecting the abnormal delivery from below in spite of possible danger to the mother or the infant or with the earlier abdominal delivery in order to safeguard both the mother and infant?”

Hence increase in age and parity does not increase the ease of delivery but on the contrary, frequently increases the complications such as dystocia, uterine dysfunction and uterine rupture.

Methodology

Study setting and period

A Prospective study of 115 cases of primary caesarean section in multigravida admitted in Department of Obstetrics and Gynecology, VIMS, Ballari for a period of 1 year (2020 to 2021).

Study Design

A Prospective observational Study

Inclusion criteria

- All Multigravida undergoing primary caesarean section

Exclusion criteria

- Women with previous caesarean section
- Scarred uterus

Sample size estimation

We have enrolled all the cases that fulfilled inclusion/exclusion criteria in to the study over a study period.

Totally 115 cases were enrolled and all were study subjects/parameters.

Results

Table 1: Age wise distribution

Age in years	Frequency	Percentage
18 - 20 years	9	7.8
21 - 25 years	59	51.3
26 - 30 years	37	32.2
31 - 35 years	8	7.0
Above 35 years	2	1.7
Total	115	100.0

The above table and figure showed that the most common Age group was 21-25 years (53.3%).

Table 2: Distribution based on Gravidity

Gravida	Frequency	Percentage
Gravida 2	50	43.5
Gravida 3	41	35.7
Gravida 4	12	10.4
Gravida 5	8	7.0
Gravida 6	2	1.7
Gravida 7	2	1.7
Total	115	100.0

Majority of the patients were gravida2 (43.5%)

Table 3: Distribution based on Gestational Age

Gestational Age	Frequency	Percentage
Pre term	16	13.9
Term	93	80.9
Post term	06	5.2
Total	115	100.0

Majority of patients were Term gestation (80.9%)

Table 4: Medical Conditions

Medical Conditions	Frequency	Percentage
HDP	12	29.3
Anaemia	6	14.6
APH	10	24.4
GDM	8	19.5
Hypothyroidism	2	4.9
Epilepsy	1	2.4
BOH	2	4.9
Total	41	100.0

The above table and figure shows Medical Conditions in which the most common disorder was HDP (29.3%) and second most common was APH (24.4%). These two were most common indication for preterm births and perinatal morbidity.

Table 5: Indication for C section distribution

Indication for C section	Frequency	Percentage
Fetal distress	41	35.7
Second stage arrest	16	13.9
Breech	13	11.3
Placenta previa	10	8.7
Face presentation	7	6.1
Transverse lie	6	5.2
CPD	5	4.3
Cord prolapse	4	3.5
Compound presentation	4	3.5
Brow presentation	2	1.7
Anhydramnios	2	1.7
Obstructed labour	2	1.7
Twin 1 non vertex presentation	1	0.9
Abruptio placenta	1	0.9
Maternal indication	1	0.9
Total	115	100.0

The most common indication for caesarean section in multigravida

- a) Fetal distress (35.7%)
- b) Malpresentation (27.8%), among these breech presentation was most common (11.3%)
- c) Second stage arrest (13.9%), in which most cases were arrest of descent.

Discussion

There were total 115 cases of primary caesarean section in multigravida over a period of one year. The incidence was 1.34% of all deliveries, comparable to study by Surekha S Mohan *et al* incidence rate was 1.83%.

Table 6: Incidence of primary caesarean section in Multigravida

Sharmila G <i>et al.</i> ^[2] (2016)	3%
MD Munusamy <i>et al.</i> ^[3] (2018)	3.33%
Rajput N <i>et al.</i> ^[4] (2017)	4.7%
Surekha s mohan ^[5] (2017)	1.83%
Himabindu P <i>et al.</i> ^[7] (2015)	2.86%
Present study	1.35%

Out of 115cases 77 cases were belonging to low socio economic status.

Most common age group was 20-25yrs, 59 cases belonging to this age group with incidence of 51.3% which was comparable to study by MD Munusamy *et al* i.e 60.2%.

According to this study 105cases (91.3%) were booked cases either in primary health centre or private hospital or our hospital which was comparable to MD Munusamy *et al* with 96.3% patients,62% by Surekha S Mohan *et al*.

Most common gravida was Gravida 2 with 43.5% and second most was gravida3 with 35.7%, which was comparable to Rajput N *et al* (49.72%) and Preeti Bajaj *et al* (55%).

Majority of cases were term gestation-93 cases (80.9%).

Most common medical disorders were hypertensive disease in pregnancy and second most was APH.

The most common indication for primary caesarean section in multigravida

- a) Fetal distress (35.7%)
- b) Malpresentation (27.8%), among these breech presentation was most common (11.3%) and most 2nd most was transverse lie.
- c) Second stage arrest (13.9%).

Table 7: Most common indications for CS

Study	1 st common indication	2 nd common indication
Sharmila G <i>et al.</i> (2016) ^[2]	Mal presentation (23.4%)	APH (16.8%)
MD Munusamy <i>et al.</i> (2018) ^[3]	Fetal distress (18.12%)	HDP in pregnancy (16.1%)
Rajput N <i>et al.</i> (2017) ^[4]	Malpresentation (29.79%)	Fetal distress (18.39%)
Himabindu P <i>et al.</i> (2014) ^[7]	Fetal distress (24.7%)	Malpresentation (19.3%)
Present study	Fetal distress (35.7%)	Malpresentations (27.8%)

So in majority of studies most common indication for primary caesarean section was fetal distress ^[8].

This high rate of CS was due to the increased detection of FHR abnormality by continuous electronic monitoring and Meconium stained liquor in case of fetal distress.

Mal presentation most common in multi and is favoured by pendulous abdomen, lardosis of lumbar spine.

The incidence of transverse lie increases with parity occurring 10 times more frequently in patients of parity four or more than in primigravida.

The most common cause for transverse lie according to Eastman were

- a) Abnormal relaxation of abdominal wall
- b) Pelvic contraction
- c) Placenta previa

The most common intra operative complication was PPH and post-operative morbidity was puerperal pyrexia.

Conclusion

Most common indication for primary caesarean section in Multigravida were

- Fetal distress
- Mal presentations
- Second stage arrest

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