PARIPEX - INDIAN JOURNAL OF RESEARCH | Volume - 11 | Issue - 11 |November - 2022 | PRINT ISSN No. 2250 - 1991 | DOI : 10.36106/paripex

ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

CLINICAL STUDY OF PRIMARY CESAREAN SECTION IN MULTIPAROUS WOMAN

KEY WORDS: Primary Cesarean section, Multiparity, maternal morbidity, perinatal morbidity and mortality.

Dr Ambala Sowjanya — Post Graduate, Government General Hospital

Dr. Dhanireddy Salini Sakuntala — Assistant Professor, Department of Obstetrics and Gynaecology, Government General Hospital, Kadapa.

Dr. K. Lakshmi Narayanamma — Assistant Professor, Department of Obstetrics and Gynaecology, Government General Hospital, Kadapa.

ABSTRACT

Objective: To study the indications for the primary cesarean section in multiparous women who had atleast one vaginal delivery previously after period of viability and maternal and fetal outcome after primary cesarean section. Duration and place of Study: This study was conducted in labor room, GGH, Kadapa from January 2021 to December 2021 for 1 year. **Type of Study:** Prospective Study. **Materials & Methods:** 100 cases of Primary Cesarean Section in Multiparous Woman. **Result:** Incidence is 4.4% of total cesarean section and 1.99% of total number of deliveries and indications, maternal postoperative complications, perinatal outcome, perinatal morbidity and mortality were obtained. **Conclusion:** Primary cesarean sections in multipara constitute only a small percentage of total deliveries (1.99%) but are associated with high maternal and fetal morbidity. High maternal morbidity (90.9%) in the study undergoing second stage sections and high perinatal mortality (56.25%) was seen in Antepartum Hemorrhage. Good Antenatal and intrapartum care and early referral will reduce the maternal and perinatal morbidity and mortality in Multipara.

INTRODUCTION

The term cesarean section refers to the operation of delivering the baby through incision made on the abdominal wall and on intact uterus after the period of viability. Primary cesarean section is the first cesarean procedure for the mother irrespective of parity. Cesarean section rates show a wide variation among the countries in the world, ranging from 0.4% to 40 % and the trend in continuous rise has been observed in the past 30 years.[3,4], Primary cesarean section rate contribute to nearly 49% of the total cesarean section rate and it is on the increase[6] Previously incidence of primary cesarean section rate was less in multiparous women compared to primigravida but now due to broad range of indications there is less difference based on parity[7].

AIMS AND OBJECTIVES

To study the indications for the primary cesarean section in multiparous women who had atleast one vaginal delivery previously after period of viability.

To study the maternal and fetal outcome after primary cesarean section in multiparous women.

MATERIALS AND METHODS

This is a 1 year prospective study of 100 cases of primary cesarean section in multiparous women from January 2021 to December 2021. 100 cases of primary cesarean sections in multiparous women done in, Government General Hospital, Kadapa, Andhra Pradesh were analysed. It is a tertiary care centre, constitutes largest referral centre in Kadapa District. The patient population comprises, mainly of low income group from rural areas, urban slums, referred patients from surrounding rural areas, private clinics and adjacent district hospitals.

Inclusion Criteria

This includes the multiparous women who underwent cesarean section for the first time who have delivered vaginally in previous pregnancies after the period of viability.

Exclusion Criteria

Women who never had crossed 28 weeks of gestation in her previous pregnancies. Women who underwent cesarean section in previous pregnancy, previous uterine surgery or hysterotomy and Secondary abdominal pregnancy

Information regarding age, socioeconomic status, details about previous conception, antenatal care and booking status was collected.

Complete general physical examination, systemic examination and obstetric examination was done. Routine and relevant investigations such as analysis of urine (albumin, sugar, Microscopy), Hb gms/dl, bleeding time, clotting time, platelet count, Blood Grouping and Rh typing. VDRL,HIV, HbsAg, RBS were all done. Ultra sound with fetal Doppler study was done whenever f ound necessary. Cardio tocographic monitoring was done during labor to assess fetal well being. Period of gestation was derived from history of last menstrual period and clinical examination and confirmed by ultrasound. Engagement of head during labor,.duration of labor, indication for cesarean delivery, colour of liquor, abnormality of III stage labor, puerperium, weight of baby, maturity, APGAR and congenital malformation are noted. Maternal complications like post partum hemorrhage, anemia, toxemia, hydraminos, antepartum hemorrhage are recorded. Fetal complications like intrauterine growth restriction and neonatal morbidity like prematurity, meconium aspiration syndrome and birth asphyxia were noted.

OBSERVATIONS AND RESULTS

Table 1:

Age Distribution	No of Patients	Percentage
16-20	02	02%
21-25	35	35%
26-30	46	46%
31-35	12	12%
36-40	05	05%

Majority of patients in the study were from the age group 26-30yrs. Youngest women in the study was of 19yrs of age and the oldest was 40 yrs old. The percentage of primary cesarean section in multiparous women in Government General Hospital, Kadapa is 4.4% of total cesarean sections and 1.99 % of the total number of deliveries during the study period. In this study of 100 cases, 47 patients were booked cases and 53 were unbooked.

Table 2 Antenatal Complications

Complications	Frequency	Percentage
Anaemia	54	54
Mild	40	40
Moderate	08	08
Severe	06	06
Antepartum haemorrhage	20	20
Placenta previa	14	14
Abruptio placenta	06	06
Pre eclampsia	18	18
Eclampsia	01	01
Malpresentations	12	12
Breech	07	07
Oblique lie	01	01
Transverse lie	03	03
Brow presentation	01	01
Bad obstetric history	05	05
Multiple pregnancy	02	02
Polyhydramnios	04	04
GDM	02	02

Anemia, antepartum hemorrhage, malpresentations and severe pre-eclampsia are frequently encountered in multiparous women. (Hb%<10gm%) was observed in 54 cases and severe pre- eclampsia was encountered in 18 cases and 1 patient had eclampsia. Some patients in the study had 2 or more complications.

Table 3: Indications of primary cesarean section in multiparous women

Indications	Frequency (N)	Percentage (%)
Fetal distress	24	24%
Antepartum hemorrhage	20	20%
Placenta previa (major degree)	14	14%
Abruptio placenta	06	06%
Malpresentations	12	12%
Breech	07	07%
Oblique lie	01	01%
Transverse lie	03	03%
Brow Presentation	01	01%
Obstructed labor	08	08%
Severe oligohydramnios	07	07%
Bad obstetric history	05	05%
Cephalopelvic disproportion	06	06%
Deep transverse arrest	02	02%
Compound presentation	03	03%
Failure of induction	04	04%
Multiple pregnancy	02	02%

Table shows the indications of primary cesarean section in thepresent study. Fetal distress and Antepartum hemorrhage were the major indications for cesarean section i.e. 24 cases and 20 cases respectively. Among the antepartum hemorrhage placenta previa is more common than abruptio placenta. Other common indications are malpresentations, fetopelvic disproportion and obstructed labor.

Second stage cesarean sections

Table 4 : Maternal Morbidity

Post operative complications	Frequency (N)
Paralytic ileus	3
Puerperal fever	3
Wound gaping	2

As shown in the table, in the present study post operative morbidity was present in 8 patients amounting to 8% of incidence. Among them paralytic ileus and puerperal sepsis were more common and seen in 3 cases (30%) each. The high post operative morbidity is due to the fact that most of the cases were unbooked and referred from peripheral centers handled outside by untrained dhais.

FETAL OUTCOME

Table 5 : Birth weight distribution

Birth weight in Kgs	No of babies
<1.5	4
1.6-2.0	11
2.1-2.5	23
2.6-3.0	3
3.1-3.5	17
3.6-4.0	6
>4.0	2

In the study 102 babies were born as there were 2 cases of twin pregnancy among them majority of babies weighed in the range of 2.6-3 kgs

NEONATAL OUTCOME

Table 6 : Neonatal Outcome

Neonatal Outcome Frequency (N)	Frequency (N)
Live births	100
Term	88
Preterm	22
<34 Weeks	09
>34 Weeks	13

In the study 102 babies were born as there were 2 cases of twin pregnancy. And there were 100 live births. Out of 100 there were 22 preterm babies

Table 8 : Neonatal Morbidity

NICU Admissions	Frequency (N)	Percentage (%)
Preterm care	16	42.2%
Meconium aspiration syndrome	15	39.5%
Birth asphyxia	3	7.9%
IUGR	2	5.2%
Sepsis	2	5.2%

Table 8 shows the cause for NICU admissions for the babies in the study. Out of 95 live births 38(40%) babies were admitted in NICU and majority of them were for preterm care and meconium aspiration syndrome.

Table 9 : Perinatal Mortality

Indications	Neonatal Death (N)	Total (N)
Placenta previa	02	02
Abruptio placenta	01	01
Obstructed labor	01	01
Malpresentation	02	02
Severe oligohydramnios	02	02
Fetal distress	01	01
Total	09	09

In table 9, it is shown that the perinatal mortality in the study was 8.8%. Among them antepartum hemorrhage accounts to 33.3% cases of fetal losses.

Table 10 : Causes for Neonatal Deaths

Cause	Number
Prematurity	06
Birth Asphyxia	02
Meconium Aspiration Syndrome	01

Cesarean Section In Second Stage Of Labor

There were 11 cases of second stage cesarean deliveries, among which 3 cases of deep transverse arrest and 8 cases of obstructed labor were noted. Intrapartum blood transfusion was required in 5 cases, thinned out lower uterine segment was found in 7 cases, Bandl's ring in 1 cases., intraoperatively lateral extension of uterine incision was seen in 2 cases and bladder and bowel distension was found in 1 case.

Among the post operative complications, 2 patients had wound disruption requiring resuturing and 1 patient had paralytic ileus. 6 babies were admitted to NICU. There was 1

intrauterine death and 1 neonatal death.

Table 11 : Morbidity in second stage cesarean sections

Morbidity	Frequency (N)	Percentage
NICU admissions	6	54.5%
Need for blood transfusion	5	45.5%
Bandl's ring	1	9.09%
Extension of uterine incision	2	18.2%
Perinatal mortality	2	18.2%
Wound gaping	2	18.1%
Paralytic ileus	1	9.1%

DISCUSSION

Cesarean section is not the the panacea for all obstetric problems but it is an excellent solution when applied judiciously. 100 cases of primary cesarean sections in multipara done in Government General Hospital, Kadapa from January 2021 to December 2021 were analysed. Incidence of primary cesarean section in multipara in the present study is 1.99% which is comparable with Jacob and Bharghav study (2.06%) . In the present series maximum number of women undergoing primary cesarean section in multipara were of 25-35 years (50%). In Kiyoko M.parish series and PS Reddy series maximum number of patients were of 25-35 years.

The four major indications for cesarean section in multipara in our study were antepartum hemorrhage, fetal distress, malpresentations and fetopelvic disproportions. In a study by Duckman et al, 22% multipara had primary cesarean section for cephalopelvic disproportion (4.1% of primary cesarean section) and contracted pelvis was found in 11 cases. The incidence of BOH in the present study is 6.0% which is similar to the incidence in Jacob, and also Sameer Sen's series. According to Bhasin SK et al ,the main indication for cesarean section were fetal distress (22.9%),followed by post cesarean pregnancies(21%) and the failure of progression of labor. However the maternal and perinatal mortality and morbidity are typically higher with cesarean deliveries than with vaginal deliveries in part because of the complications that led to the cesarean section and in part because of increased risks inherent in the abdominal route of delivery.But still cesarean section is more safer than difficult vaginal delivery. Preventive efforts should be made towards decreasing the frequency of primary cesarean deliveries by strict and appropriate management of labor. Efforts to lower cesarean section rate should focus on the areas of fetal distress,failure to progress in labor. In Desai et al study puerperal pyrexia was of 11.63%,and wound gaping was seen in 10.47% of cases, Whereas in PS Reddy et al study urinary tract infection was seen in 12.55% comparatively more than the incidence of wound gaping. In the present study puerperal pyrexia is the commonest, contributing 30% of post operative complications,followed by wound gaping and urinary tract infection The perinatal mortality in the present study is 15.6% and is nearer to Sikdar et al study.

CONCLUSION

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 cesarean section for safe delivery. Primary cesarean sections in multipara constitute only a small percentage of total deliveries (1.99%) but are associated with high maternal and fetal morbidity. Anemia, antepartum hemorrhage, malpresentations and severe pre- eclampsia were most common associated preoperative complications.

Fetal distress (24%), antepartum hemorrhage (24%), malpresentations (15%) and fetopelvic disproportions (6%) were most common indications for cesarean sections. The highest maternal morbidity (90.9%) in the study was seen in patients undergoing second stage cesarean sections and the highest perinatal mortality (56.25%) was seen in women with antepartum hemorrhage. Good intrapartum and postpartum care have eliminated maternal deaths in our study. Unrecognized cephalopelvic disproportion leading to obstructed labor (in referred cases) has increased the maternal morbidity. Hence a multiparous women in labor requires the same attention as that of primigravida. Good antenatal and intrapartum care and early referral will reduce the maternal and perinatal morbidity and mortality in multipara.

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