



## A STUDY OF INDICATIONS OF PRIMARY CESAREAN SECTION IN MULTIPARA OTHER THAN PREVIOUS CESAREAN SECTION: A RETROSPECTIVE STUDY DONE AT TERTIARY CARE CENTER

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### ABSTRACT

**Background:** Cesarean section is one of the most commonly performed operations in modern obstetrics. The first operation performed on a patient is referred to as primary cesarean section, and when operation is performed in subsequent pregnancies, it is called repeat cesarean section. Primary cesarean section in multipara means cesarean section done for the first time in patients who had delivered vaginally once or more.

**Aims and objectives:** Aim of the present study is the analysis of cases where cesarean section was done for the first time in parous women who had vaginal delivery once or more. Various indications for cesarean section were studied in relation to age, parity, fetal outcome, type of anesthesia were analyzed.

**Methods:** It is a retrospective observational study of 110 cases of primary cesarean section done in multiparous women admitted at our department of obstetrics, a tertiary care hospital at Ahmedabad during period of Dec 2019-May 2020. Cases requiring elective and emergency cesarean sections were included in the present study. Indications for cesarean section, Intra operative details, Maternal and fetal outcome were recorded. Analysis of cases in relation to different factors was done.

**Results:** Most of the cases were unbooked and referred as emergency. Most common age group was 21-30 years and Majority were 2nd and 3rd gravida. Among the various indications for cesarean sections in multipara, fetal distress, APH and Abnormal presentations were the common causes.

**Conclusion:** Even though parous women had previous normal vaginal delivery, there were many complications like increased incidence of malpresentations, CPD, placenta previa and others which would need cesarean section. Careful analysis of present pregnancy is needed to improve maternal and fetal outcome.

### KEYWORDS :

#### INTRODUCTION:

There is a trend of worldwide increase in cesarean section rates. Cesarean section is the most commonly performed surgical procedures; in many cases it can be life saving for the mother, fetus or both. With increased safety following introduction of modern anesthesia, blood transfusion, higher antibiotics, the indication of cesarean section are liberalized to include dystocia, placenta previa, fetal distress, bad obstetric history and others. Also, Cesarean section is considered as a safer alternative to prolonged and difficult vaginal operative delivery so as to reduce maternal and perinatal mortality and morbidity.

With the introduction of modern technology in the labour wards like cardiotocography, color doppler, biophysical profile for the intrapartum surveillance of the fetus there was further increase in cesarean sections due to overdiagnosis of fetal distress.

The other responsible factors for rise in cesarean section rate in multipara are identification of high risk pregnancies with improved antenatal care and antepartum fetal surveillance techniques, rising rates of elective induction of labour, decline in operative vaginal deliveries and vaginal breech deliveries, increased number of women with advanced age pregnancy which is associated medical complications.

Primary cesarean section in multipara means first cesarean section done in women who had delivered through vaginal route previously once or more after the period of viability. Even though they have delivered once vaginally, they still may have cephalo-pelvic disproportion in view of pendulous abdomen with lordosis of the lumbar spine responsible for failure of the head to engage.

Studied by Solomon in 1932, who called them as "Dangerous multipara", and Freeney in 1953 as "Unpredictable multipara".

#### AIMS AND OBJECTIVES:

- 1) To study the indications of primary cesarean section in multipara other than previous cesarean section
- 2) To know parity and age distribution in case of cesarean sections in multipara.
- 3) To know neonatal and maternal outcome in case of primary cesarean section in multipara.

#### MATERIALS AND METHODS:

It is a retrospective study of 110 cases of primary cesarean sections done in multipara over a period of 6 month at a tertiary care center and medical college at Ahmedabad, which is a referral center for many peripheral centers. This includes patients reporting directly to the labour room in various stages of labour as emergency cases and elective cases who were admitted in antenatal wards with various high risk factors. Detailed history and examination including pelvic assessment have done of all patients. For all cases basic investigations and antenatal ultrasonography were done. Labour monitored by partograph and intra partum CTG was done where required. Decision for cesarean section was based on clinical evaluation and progress of labour. All intra operative details were noted and complications managed accordingly. Post operative period was monitored and all complications were managed as per regular protocol.

#### Inclusion Criteria:

- 1) Multipara
- 2) Multiple pregnancy

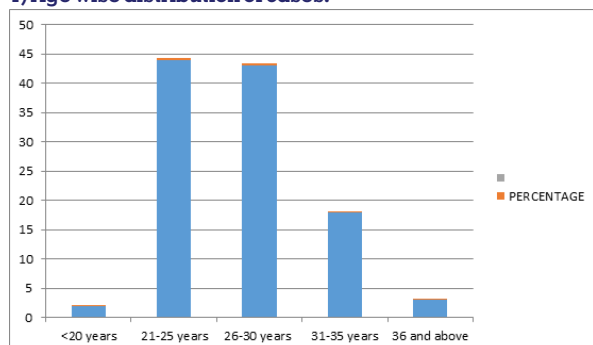
**Exclusion Criteria:**

- 1) Primi gravida
- 2) Previous LSCS

**OBSERVATION AND RESULTS:**

A total of 2999 deliveries occurred during the study period . 1080 cesarean section and 1919 vaginal deliveries . A total number of 110 primary cesarean section were done in multipara out of 1080 total cesarean section, during a period of 6 month from December 2019 to may 2020, were analyzed. Incidence of study group was found to be 3.66% ,other results were as follows. Overall Caesarean section rate was 36%.Ratio of study group was 10.18%.

**1) Age wise distribution of cases.**



Maximum cases are seen in the age group of 21-30 years (79.09%).

**2) Indications for primary cesarean sections in multipara other than previous LSCS.**

INDICATIONS	NO. OF CASES	PERCENTAGE (n= 110)
Fetal distress	36	32.72%
APH	15	13.63%
Abnormal presentations	12	10.90%
Failed induction	10	9.09%
Medical disorders / other obstetrics complications like severe pre-eclampsia and eclampsia	10	9.09%
Prolonged labour/NPOL	8	7.27%
BOH with Precious pregnancy	5	4.54%
Prolonged PROM	4	3.63%
Obstructed labour	4	3.63%
Cord prolapsed	3	2.72%
Severe oligohydroamnios	1	0.90%
Doppler changes	1	0.90%
Failure of vaccum	1	0.90%

The most common indication found was Fetal distress (32.72%), followed by Antepartum haemorrhage -APH (13.63%) and Abnormal presentations (10.90%).

**3) Distribution as per parity**

TOTAL	P2	P3	P4	>P5
110	56	34	13	7
100%	50.90%	30.90%	11.81%	6.36%

56 cases (50.90%) were 2<sup>nd</sup> para i.e. with previous one vaginal delivery and 34 cases of 3<sup>rd</sup> para (30.90%) previous 2 vaginal deliveries.

Amongst all delivered babies, most of the babies weight was between 2.1 to 3 kg (57%), and maximum 95.45% were live births and 4.55% were still births. Out of 110, maximum (97.28%) LSCS done as emergency cesarean section and

2.72% were done as elective cesarean section. Total 19 LSCS out of 110 were done under General Anaesthesia accounted for 17.27%, Rest 82.73% of the patients (91 out of 110) underwent cesarean section with spinal Anesthesia.

About Maternal complications Puerperial pyrexia (15.27%); Post partum haemorrhage (11.30%) in which Atonic PPH(7.54%) and traumatic PPH(3.76%); wound infection(7.09%); Respiratory infection (2.72%) and UTI(1.81%).

**DISCUSSION:**

A women who had normal vaginal delivery still may require a cesarean section for the safe delivery. The average labour curve continues to change from low parity to multiparity but not towards an ever improved progress.

Total number of deliveries during the present study period for 6 month were 2999 and cesarean sections was done in 1080 cases accounting 36.01%. The high cesarean section rate was because our hospital is a tertiary referral centre for many rural area around, from which exclusively high risk cases were referred for delivery. Most of the cases were unbooked (68%) with no antenatal checkups and came as emergency admission to labour ward. According to age wise distribution, 80%were of age 21-30 years.

Among the Indications for primary cesarean section in multipara, most common was fetal distress(32.72%) identifies by thick meconium stained liquor, fetal heart abnormalities detected by CTG, Failure of progress of labour with signs of obstruction, followed by Antepartum hemorrhage(APH) accounted for 13.63% of cases with placenta previa(12 cases) and abruption (3 cases). Most of the cases of placenta previa were referred for delivery from outside. Internal iliac artery ligation was done in 3 cases, Intrauterine packing was done in 2 cases for PPH. None of the cases required obstetrics hystrectomy. Almost all the cases of APH and PPH received blood transfusions. Among 3 cases of Abruption placenta, in 2 cases DIC were detected, which recovered after delivery due to timely intervention and management in HDU prompt transfusion of blood components.

Abnormal presentations accounted for 12 cases( 10.90%) , most common( 8 cases )being breech presentation for which cesarean section was done as these cases did not give consent for assisted vaginal breech delivery after explaining risk. Hence elective cesarean section was done for those. Cases of failed induction accounted for 9.09%, induction was done for indication like postdatism, PROM, Oligo hydroamnios, etc. Prelabour rupture of membranes directly accounted for 3.63% as indication for primary cesarean section in multipara. Most of them were referred from outside as prolonged PROM.

Most common medical disorder detected in this study was heart disease(3 cases), in which cesarean section were done to cut short labour; Most common obstetric complication detected was severe pre-eclampsia (5 cases) and Eclampsia (2 cases). Distribution of parity majority belongs to P2 (50.90%) and P3 (30.90%). In Neonatal outcome majority babies birth weight lie between 2.1 to 3 kg (57%) and maximum were live birth.

The Rate of emergency cesarean section is much higher 97.28% than elective cesarean section i.e 2.72% this rate is similar to earlier studies in Pakistan , Saxena N et al study and Nigeria etc and might be because of the Prevalence of factors such as prolonged labour or cephalo pelvic disproportion which are diagnosed in the labour and could be the possible explanation for emergency cesarean section instead of instrumental vaginal delivery.

This study reemphasizes the need of through antenatal care and vigilance in the management of labor. Negligence in which, most of the time needs operative interventions for the good concerns of mother and baby both. Above this, there is a great need to counsel multipara to report to the hospital as early as possible as many of them are likely to try a home delivery and on failing which they come down to the hospital.

#### **CONCLUSION:**

Many complications occur in women who previously had a normal vaginal delivery. It is recommended that all antenatal patients must be booked and receive proper and regular antenatal care. Multipara, especially grand multipara belong to high risk group who may have many obstetric complications which were frequently overlooked due to false sense of security created by previous vaginal deliveries.

Recent concept of "Maternal Near Miss"(MNM) or severe acute maternal morbidity(SAMM) Defined as a women who nearly died but survived a complication during pregnancy or child birth confers a warning in the management of multiparous women who may have many unforeseen complications which may contribute to serious maternal morbidity and mortality as outlined in the present study.

Also 100% deliveries in multigravida should be institutional deliveries in order to reduce maternal and perinatal morbidity and mortality.

#### **DECLARATIONS:**

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**Conflicts of interests:** none

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