

## Primary Cesarean Section in Multiparous Women In Tertiary Centre: A Prospective Study

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### Abstract

**Introduction:** Cesarean Section (C.S.) is one of the most performed operation in today`s modern obstetrics. Primary cesarean in multiparous woman means C.S. done first time on patients who had delivered vaginally once or more after the period of viability.

**Aims & Objectives:** Aim is to highlight the importance of antenatal and intranatal care even in multiparous women having previous vaginal delivery.

Objective is to study the cases in which C.S. was done for the first time in parous woman having vaginal delivery once or more in detail.

**Materials & Methods:** It was a hospital based prospective study in which 474 cases were taken for study whose C.S. was done for the first time in Labor room PMCH Patna between Jan 2019 to Dec 2019.

After admission and proper workup, various indications for cesarean were studied in relation with age, parity and maternal & perinatal outcome.

**Results:** Amongst the various indication of C.S. in multiparous women,

Fetal Distress, CPD, APH, Malpresentation & HDP were found in most of the cases. Most cases were unbooked and referred. Most common age group was 20-25 years, and 2nd and 3rd gravida were more frequent.

**Conclusion:** Previous vaginal deliveries give a false sense of security to the patients as well as relatives, but there are many reasons where C.S. becomes necessary for maternal and fetal interests.

**Key Words:** Multiparous, cesarean section, vaginal delivery.

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## Introduction

Cesarean Section is the most performed operation in today's modern obstetrics.<sup>1</sup> It defines the birth of a fetus after the end of 28th weeks, delivered through an incision in abdominal and uterine walls.<sup>2</sup> Multiparous means those who has completed two or more pregnancies to the period of viability or more, it includes parity 2-4 and grand multiparous >4.<sup>2</sup> Primary cesarean refers to a C.S. done for the first time whereas repeat C.S. denotes an operation in subsequent pregnancies.<sup>2</sup> Primary C.S. in multiparous means first C S done in a patient who had delivered vaginally once or more after the period of viability.<sup>3</sup>

It is a common belief that once a mother delivers vaginally, all her subsequent deliveries will also be vaginal. As a result, such multiparous women neglect routine antenatal checkup and most of them come to the hospital in second stage of labor.

The incidence of C.S. has been increased two to threefold from the initial rate, because of the introduction of modern technology in labor ward and neonatal unit, identification of high risk cases, increased intrapartum surveillance, modern anesthesia, decline in operative or manipulative vaginal delivery, blood transfusion facility and better antibiotics. Indications for C.S. are also liberalized due to medical, social, ethical, economic, and medico-legal factors leading to worldwide increase in C.S. rates.<sup>2</sup>

## Aims & Objective

Aim is to highlight the importance of good antenatal and intranatal care even in a multiparous women having previous vaginal delivery.

Objective is to know the incidence and indications of primary C.S. in multiparous women and its relation with age and parity and also maternal and perinatal outcomes.

## Material and Methods

Study design—Hospital based prospective study

Study place—Labor room of Department of obstetrics and gynaecology, PMCH, Patna.

Study period—1 year, January 2019 to December 2019

Sample size—474 cases

**Inclusion Criteria:** All multigravida (Gravida 2 or more) with pregnancy >28 weeks of gestation.

**Exclusion Criteria:** Primigravida, Woman with previous cesarean section, Ectopic pregnancy, Ruptured uterus

**Data collection:** Written informed consent was subsequently obtained from 474 cases during the period of one year from January 2019 to December 2019. A detailed questionnaire written in local language and information was collected. Mother's age, educational status, booked or unbooked, period of gestation, parity, mode of termination and follow up till discharge from ward were recorded. This included the patients reporting directly to labor room in various stages of labor as well as those who were admitted to antenatal ward for various high risk factors and taken up for elective C.S. Some of those first subjected to trial of labor & then subsequently were operated upon. Before and during the operation as well as at time of discharge, the patient and her accompanying person were counselled about the importance of spacing, contraception and immunization.

**Ethical Approval:** Study approved by Institutional Ethical Committee.

**Data Analysis:** Data collected in questionnaire were analyzed by Microsoft excel.

## Results:

During the study period there were 2825 total C.S. performed. Among them, primary C.S. done in 474 multiparous women, resulting in incidence of 16.77% of total cesarean cases.

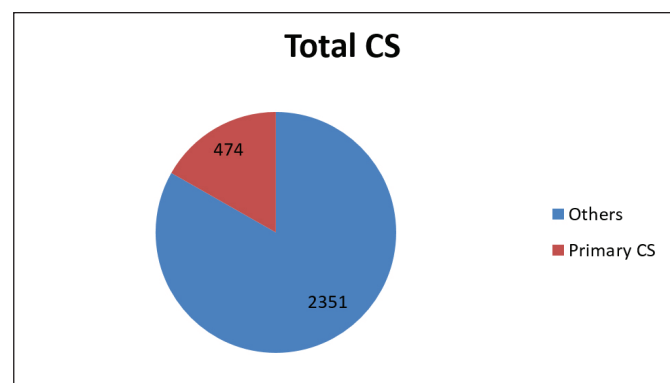


Fig -1: Incidence of Primary CS

In majority of multiparous women [n=390 (82.27%)] cesarean done in emergency, while in rest elective

cesarean done in cases of malpresentation (breech, transverse lie, twin with non vertex presentation, compound presentation), pregnancies with pelvic bony tumor and big vaginal cyst.

Majority of cases (n=48.73%) were in age group of 20-25 years, whereas 33.75% were between 26-30 years of age.

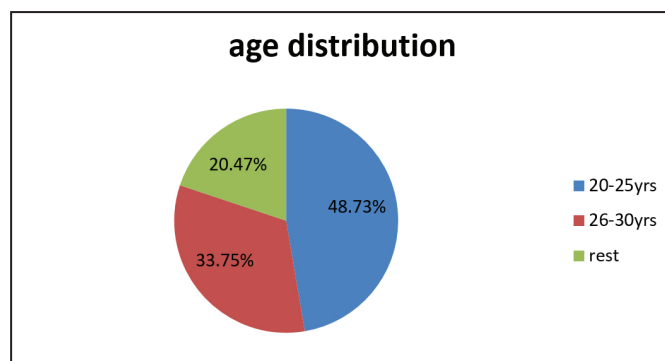


Fig 2: According to age

Most of them were gravida =2 (48.31%) & gravida=3 (30.80%), whereas para 4 and more were (20.88%).

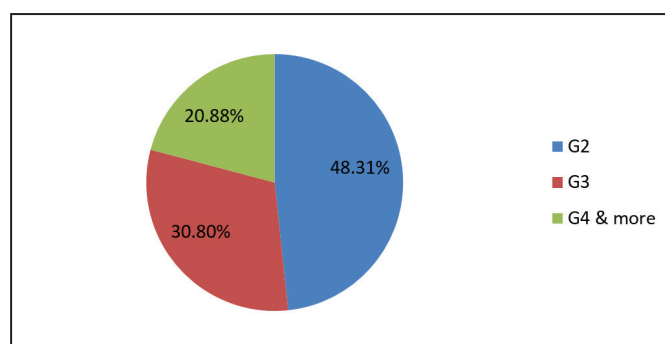


Fig 3: According to parity

Most common indication was Fetal distress (25.30%), followed by APH (20.88%) and Malpresentation (18.14%) for breech, face, transverse lie, and Twin with malpresentation.

Cesarean hysterectomy was done in 5 cases of APH & 3 cases of PPH --(1.68%).

Maternal morbidities also observed during follow up period like, Pyrexia n=29(6.1%), UTI n=16 (3.4%), Abdominal distension n=56(11.8%), RTI n=23(4.8%), Wound gaping/sepsis n=43(9%), Puerperal psychosis n=9(1.9%), PPH n=24 (5%), Severe anemia n=78(16.5%), other medical disorders n=93 (19.6%).

Perinatal outcome regarding birth weight, most of babies (70.5%) were >2.5 kg (2.5- 4kg), while 27.8%

of babies were <2.5 kg. APGAR= 8-10 seen in 91.7 % of cases while, low APGAR (<7) seen in babies of preterm, LBW, fetal distress with MAS/MSL, RDS, GDM with hypoglycemia and they were admitted in NICU (n=21=4.4%). IUD and stillbirth found in 18 (3.79%) in cases of abruption and obstructed labor.

Perinatal morbidities seen in babies were, MAS in 38.4%, Birth asphyxia in 35.97%, jaundice in 29.2%, followed by prematurity in 12.65% and sepsis and pyrexia in 12.8%

## Discussion:

Multiparity is a problem associated with lower age of marriage, poverty, low per capita income, illiteracy, high perinatal mortality, preference of male child, Ignorance and lack of knowledge of the available antenatal care and family planning measures.<sup>1</sup> A multipara who has earlier delivered vaginally may still require a C.S. for safe delivery. Cesarean delivery is considered as a safe alternative to prolonged and difficult vaginal operative delivery to reduce maternal and perinatal mortality and morbidity.

In this study 474 cases of multigravida underwent primary C.S.in study duration of Jan 2019 to Dec 2019 in Patna Medical College Hospital with an incidence of 16.77% (fig. 1) slightly higher incidence can be understood as our institute is tertiary referral centre.

Out of 474 cases, most of patients (48.73%) belong to age of 20-25 years followed by 33.75% in the age group of 26 to 30 year (fig. 2). Similar age pattern were seen in recent studies conducted in Government General Hospital Kakimoda (2013 to 2015) and Siddhartha Medical College, Vijaywada by P.Himabindu et al (2015).<sup>4</sup>

Distribution of cases according to parity shows that the most of patient (48.31%) were gravida 2 followed by gravida 3 (30.80%) (Fig. 3), Sethi. P et al (2014)<sup>5</sup> also reported similar pattern in his study.

In majority (82.28%) of multiparous women, emergency cesarean done, while elective cesarean done in rest of them. Similar results were observed in study done by Sherinsams C et al (2017).<sup>6</sup>

In this study, in most of the cases lower segment C.S. were done for Fetal distress (25.3%), APH (20.88%) and abnormal presentations (18.14%), HDP (12.2%).

These results were compared with studies by Erika Desai (2013)<sup>1</sup> and Jyoti H. Rao.<sup>7</sup> Chances of APH and HDP increases with increasing age. Malpresentation & malposition were more seen in these cases due to lax and pendulous abdominal wall in multigravida, imperfect uterine tone, extreme uterine obliquity and abnormal placentation.<sup>8</sup>

Caesarean hysterectomy was done in 8 cases of APH and PPH (1.68%).

Morbidities also seen in good no. of cases. Some cases had more than one morbidities.

Cases of severe anemia also seen in high no. of cases. All these anemic cases and cases operated for APH, PPH needed blood and blood products transfusion.

Puerperal pyrexia was the most common maternal morbidity seen in cases of anemia, prolonged labor, obstructed labor and PROM, may be due to more handling. Whereas, other morbidities seen were RTI, UTI, Abdominal distention (pseudo paralytic ileus in obstructed labor, CPD, septic cases and due to electrolyte imbalance), wound gaping/sepsis, puerperal psychosis and PPH.

With good intraoperative and postoperative care, there was no mortality.

In perinatal outcome, most of them were of good APGAR (8-10) and fall in average birth weight (2.5-4kg).

Conclusion: Although grand multiparity has been reduced in recent past years, multiparity is still prevailing in certain communities eventually jeopardizing the health of mother and her offspring. Good antenatal, intranatal care and early referral can reduce the maternal and perinatal morbidity and mortality in multiparous women. Hence a multipara woman in labor requires the same attention as that of primigravida.

Although vaginal delivery is always safer than C.S. but at the same time, it gives a false sense of security in woman who has delivered vaginally previously. In modern era with availability of good services and improved surgical expertise has made C.S. much safer, decreasing fetal loss and improving pregnancy outcome by early recognition of complications.

Ultimately, our goal should be a healthy new born in the lap of a healthy mother and this requires ANC with early identification of high risk pregnancy and good emergency care. Adoption of small family norm is a time demand too.

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