
**"A CROSS SECTIONAL STUDY OF PRIMARY
CESAREAN SECTION IN MULTIGRAVIDA AT A
TERTIARY HEALTH CENTRE, BELAGAVI"**

**By
REG. NO. BJ0120010**

Dissertation

**Submitted to the KAHER, Belagavi, Karnataka
In partial fulfilment
of the requirements for the degree of**

**MASTER OF SURGERY (M.S.)
In
OBSTETRICS AND GYNAECOLOGY**

**J. N. MEDICAL COLLEGE, NEHRU NAGAR
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JUNE / JULY - 2023

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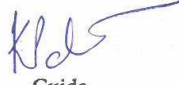

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With reference to the above, we wish to inform you that your proposed research project titled "A CROSS SECTIONAL STUDY OF PRIMARY CESAREAN SECTION IN MULTIGRAVIDA AT A TERTIARY HEALTH CENTRE, BELAGAVI" is ethical and justifiable. The proposed research project has been cleared by the JNMC Institutional Ethics Committee on Human Subjects Research.

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LIST OF ABBREVIATION

APH	-	Antepartum hemorrhage
BMI	-	Body Mass Index
BOH	-	Bad obstetrics history
CTG	-	Cardiotocography
CPD	-	Cephalopelvic disproportion
CS	-	Cesarean section
CD	-	Cesarean delivery
CDMR	-	Cesarean delivery at maternal request
DCDA	-	Dichorionic diamniotic
DTA	-	Deep transverse arrest
FHR	-	Fetal heart rate
FGR	-	Fetal growth restriction
FFP	-	Fresh frozen plasma
GDM	-	Gestational diabetes mellitus
IVF	-	In vitro fertilization
LSCS	-	Lower segment cesarean section
MAS	-	Meconium aspiration syndrome
MCDA	-	Monochorionic diamniotic
MCMA	-	Monochorionic monoamniotic
NICU	-	Neonatal intensive care unit
NHFS	-	National health family survey

PE	-Pre	-	eclampsia
PROM		-	Premature rupture of membrane.
PPH		-	Postpartum hemorrhage
PRBC		-	Packed red blood cells
RDP		-	Random donor platelets
SDP		-	Single donor platelets
SD		-	Standard deviation.
UTI		-	Urinary tract infection
URTI		-	Upper respiratory tract infection
WHO		-	World Health Organization

ABSTRACT

OBJECTIVE

To study indications and outcome of primary cesarean section in multigravida.

To study the incidence of primary cesarean section in multigravida.

MATERIALS AND METHODOLOGY

The present cross sectional observational study was conducted at, Dr Prabhakar Kore Hospital and MRC, Belagavi attached to KAHER'S Jawaharlal Nehru Medical College during period of January 2021 to June 2022. The Data was collected from the patients record of all multigravida women who had undergone cesarean section for the first time. The data obtained was coded and entered in Microsoft excel worksheet. The categorical data was expressed in terms of percentage and continuous data was expressed as mean \pm standard deviation.

RESULT

Total number of deliveries conducted between January 2021 to June 2022 were 5181. Incidence of primary cesarean section in multigravida was 5.79%. Fetal distress was the most common indication followed by malpresentation, thick meconium-stained liquor with non-reassuring CTG, severe pre-eclampsia and eclampsia. Extension of uterine incision was the most common intraoperative complication. The most observed post operative complication in the present study were wound gape, fever, post spinal headache, abdominal distension. There were 320 live birth ,3 fresh still births,1 macerated still birth. Majority of the babies had a birth weight between 2.6 to 3.0 kg with an average APGAR score of 7. There were 59 perinatal deaths with prematurity and sepsis contributing the major part.

CONCLUSION

Our study has shown that multigravida is associated with unfavorable maternal and fetal outcome, hence multigravida should receive adequate obstetrics care. The most effective approach to reducing overall morbidities related to cesarean delivery is to avoid the first cesarean. This mandates the need of target driven restrictions on the primary cesarean delivery

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INTRODUCTION

Cesarean section is the delivery of an alive or dead fetus through an abdominal uterine incision after the period of viability excluding abdominal pregnancy and removal of the fetus following uterine rupture¹. A cesarean section performed for the first time on woman is known as primary cesarean section . Women who have one or more than one viable birth are called multipara.

Cesarean section is one of the most common major operative procedure performed worldwide². Cesarean section has become a global epidemic in recent decades, with approximately a third of women giving birth using cesarean section in the world today².

Globally, 29.7 million births 21.1% via cesarean section took place in 2015, about twice as many as the equivalent rate in 2000 12.1%³. According to Vital Statistics Rapid Release July 2022, the rate rose 1% in 2020 reaching 21.9% and 2% reaching 22.4% in 2021. ³

According to NFHS-5 2019-21, the cesarean section rate in total was 21.5% comprising about 32.3% in urban and 17.6% in rural areas⁴. As compared to NFHS-4 an increase of 4% is seen.

The WHO recommends a cesarean section rate of 10-15% ².However, WHO formally retracted its prior recommendation rate of 15% in June 2010, stating that it must on women's medical needs rather than aiming for a specific rate².Dr Bethel Solomon's 1934 paper “The Dangerous Multipara” mentions the need to remove the false notion that primigravida denotes difficult labour and multipara denotes easy labour ². Obstetricians generally believe that first pregnancies and pregnancies after

cesarean sections are high-risk pregnancies². Although multiparous women who have previously delivered normally are seen as being in the low-risk group, in actuality we see unfavourable obstetric outcomes in these women as well².

In multigravida women who have previously experienced uneventful vaginal deliveries, a false sense of security often prevails, leading to neglect in attending routine antenatal check-ups increasing the risk factors⁵. Multigravida is more prone to anaemia, malpresentation, haemorrhage, and uterine rupture⁵. However if multigravida has previously given birth vaginally to a full-term child, she may still have cephalopelvic disproportion⁵. Malpresentations are favoured in multigravida patients by a pendulous abdomen and lumbar spine lordosis, and in many case, the fetus does not engage in the pelvis until labour begins.

The primary cesarean rate has become a major driver in the total cesarean rate. 50% of the increase in cesarean deliveries at their institution was attributed to an increase in primary cesarean deliveries⁶.The number of primary cesarean deliveries is rising, in addition to the annual incidence rates of total cesarean deliveries⁷.

The objectives of this study were to characterize the indications for primary cesarean delivery and to identify opportunities to lower the primary cesarean rate. The current study was carried out to determine the incidence of primary caesarean section in multigravida, to investigate the indications for a primary caesarean section in multigravida ,and to investigate the maternal and neonatal outcome. Understanding the factors leading to primary cesarean deliveries is essential to reducing the total cesarean rate.

AIMS AND OBJECTIVES

PRIMARY OBJECTIVE:

To study indications and outcomes of primary cesarean section in multigravida.

SECONDARY OBJECTIVE:

To study the incidence of primary cesarean section in multigravida.

REVIEW OF LITERATURE

HISTORY

Cesarean is derived from the Latin word “caedere” which means to cut⁸. The term cesarean has been debated throughout history⁹. It is believed to be derived from Julius Caesar's birth, it is highly improbable that his mother, Aurelia, might have survived the operation; her knowledge of her son's European invasion numerous years later indicates that she managed to live⁹. Surgical delivery was dedicated to instances when the woman was dying or dead all through Caesar's time⁹.

Under Numa Pompilius I ("Lex Regia"), Roman law required surgical removal of the fetus before the actual funeral of the dead pregnant woman; religious edicts were subject of a special funeral for the mother and the infant. Before Guillimeau's 1598 publication, which introduced the term section, the preferred term was caesarean operation⁹.

The first written account of a cesarean birth when both the mother and the baby survived comes from Switzerland in 1500⁹. Jacob Nufer performed this on his wife. Even after many days of labour and with the assistance of thirteen midwives, the woman was unable to deliver the fetus⁹. After receiving approval from the local authorities, the desperate husband Jacob Nufer tried a Caesarean⁹. The mother and child both lived and the woman survived and went on to have five more children⁹. Although there have been isolated accounts of cesarean births saving heroic lives for hundreds of years, the procedure did not become a standard element of obstetric practice until the latter half of the 19th century⁹.

This happened at the same time that birthing shifted from being primarily a midwifery event, in rural settings to an experience inside an urban motherhood hospital¹¹. The development of maternity hospitals across Europe in the 18th and 19th

centuries established the groundwork for obstetrics to become a hospital-based specialty¹⁰. In contrast to destructive techniques like craniotomy or high forceps delivery, which were frequently linked to major foetal injury, deep maternal pelvic lacerations, and long-term damage to the maternal bladder and anal sphincter, with the use of laudanum syrup and chloroform anaesthesia cesarean section, became popular to treat obstructed labour¹⁰.

CD mortality rates, on the other hand, remained exceedingly high, with infection and haemorrhage being the predominant causes of postoperative fatalities. Primitive surgical procedures and a lack of aseptic technique worsened morbidity¹⁰. Surgeons sought to finish the procedure without suturing the uterus because they were concerned that the suture material would create infection and that the uterus would recover better through secondary intention¹⁰.

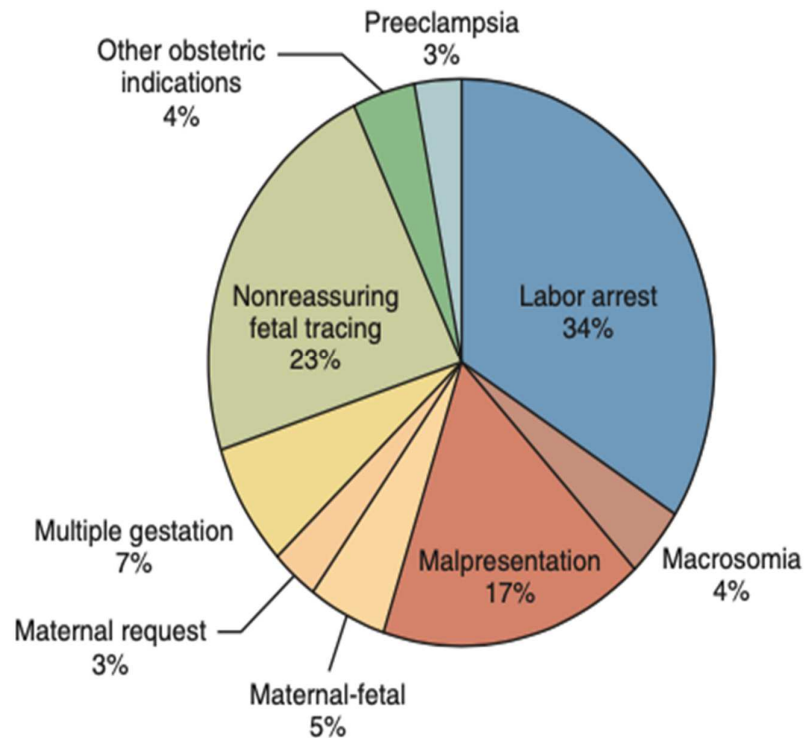
In 1769, Lebas proposed suturing the uterus⁹. Since they were believed to be impossible to remove after the cavity is closed, sutures were not used⁹. Eduardo Porro promoted the removal of both ovary and Fallopian tubes and subtotal hysterectomy in 1876 to stop bleeding and prevent postoperative infection⁹. Shortly after the usage of internal suturing using silver-wire stitches developed by gynaecologist J. Marion Sims. Two German obstetricians, Ferdinand Adolf Kehrer and Max Sänger proposed a transverse incision of the lower uterine segment, just above the internal cervical os, and introduced double-layer closure methods in the early 1880s¹⁰.

Hermann Johannes Pfannenstiel 1900, a German gynaecologist, described a curvilinear suprapubic incision, also known as a pelvic skin incision¹⁰. The location of the uterine incision was given more consideration. Many surgeons started employing horizontal uterine incisions between 1890 and 1925¹⁰.

The lower segment uterine incision and Pfannenstiel skin incision were popularized by John Martin Munro Kerr, professor in midwifery at Glasgow university, who is regarded as the "father" of the modern cesarean delivery ¹⁰. There was a decrease in the number of infections and incisional hernias and uterine ruptures as compared to vertical incision⁹. However, extraperitoneal cesarean was recommended by Frank, Veit and Fromme , Latzko , and Beck around 1900s. Even though it was known from the start of the 20th century that the vertical incision has a higher incidence of wound gape and incisional hernia, cosmetically inferior, it was the most commonly used in still 1970s⁹.

The incidence of peripartum infections significantly decreased once penicillin was developed in the 1940s⁹. There was less of a necessity for extraperitoneal dissection as antibiotic therapy developed¹. The use of CD in obstetrics increased as technology advanced, making use of uterotonics, better anaesthetic, and blood transfusions available⁹. Over the past 40 years, there has been a liberalisation of the use of cesarean delivery in developed nations because of its present safety and efficacy¹¹.

INDICATION OF PRIMARY CESAREAN SECTION¹²



Indications for Primary Cesarean Delivery. (Data from Barber EL, Lundsberg LS, Belanger K, et al. Indications contributing to the increasing cesarean delivery rate. *Obstet Gynecol.* 2011;118:29–38.)

Maternal-Fetal Indications

Most CDs are performed for conditions that might pose a threat to both mother and fetus if vaginal delivery occurred¹³. Complete placenta previa and placental abruption with the potential for haemorrhage are clear examples¹³. Dystocia presents a risk for both direct foetal and maternal trauma, and it may also compromise foetal oxygenation and metabolic status¹⁴.

Foetal Indications

Foetal indications are primarily recognized by non-reassuring FHR with the potential for long-term consequences of metabolic acidosis¹⁵. Continuous FHR monitoring is associated with a significant reduction in neonatal seizures and remains the most commonly used modality for foetal monitoring in labor. Scalp stimulation can be used to ameliorate the high false-positive rate of continuous FHR monitoring¹⁶. Other foetal indications for CD include malpresentation, such as a breech, and more than 90% of these fetuses in singleton gestations are delivered by cesarean¹⁷. Active maternal genital herpes infection is an indication for CD to reduce the risk for transmission of infection¹³. Suspected macrosomia or the potential for foetal trauma are indications for CD only in rare circumstances. Fetuses with certain birth defects, such as hydrocephalus with macrocephaly have traditionally undergone CD¹⁷.

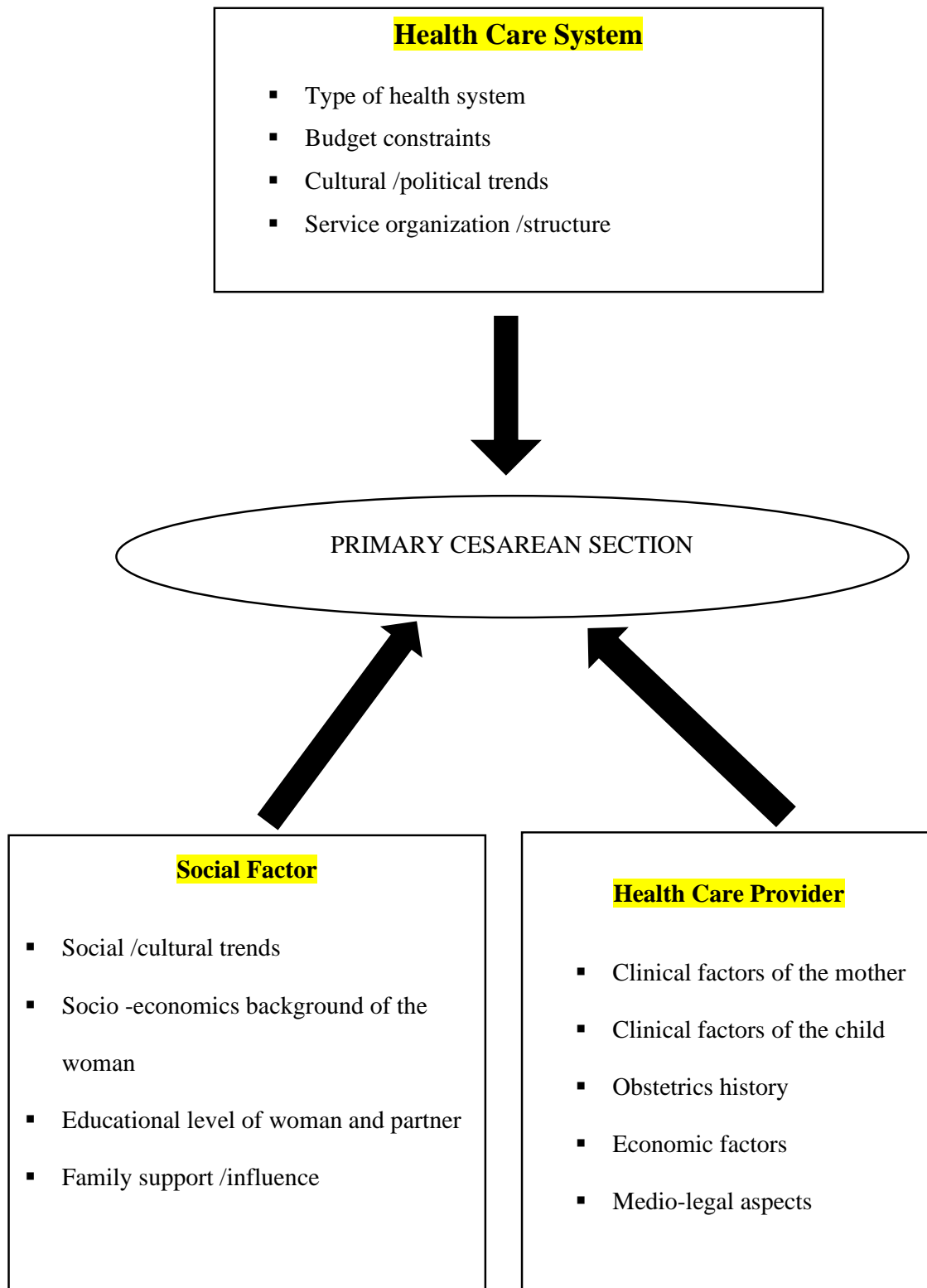
Maternal Indications

Maternal indications for CD are relatively few and can be considered medical or mechanical¹. Certain maternal cardiac conditions, such as a dilated aortic root (≥ 4 cm) with Marfan syndrome, are indications for CD. Maternal central nervous system abnormalities in which increased intracranial pressure would be undesirable, such as accompanying the second stage of labor, have also led to recommendations for CD¹⁶. Alterations in the capacity of the maternal pelvis can be indications for CD¹⁹. Mechanical vaginal obstruction as a result of pelvic masses such as lower segment myomata is examples¹⁹. Finally, women with massive condylomata and primary herpes infection at term may also require CD²⁰.

Cesarean Delivery on Maternal Request

As CD has become safer, women have occasionally expressed a desire for a cesarean without a medical indication¹⁵. This clinical scenario has been recently called “cesarean delivery on maternal request.” The lack of specificity of the term “elective” suggests the most reasonable and prudent course of action is, rather than using that term, to document the specific indication—whether medical or nonmedical—for the intervention or procedure (i.e., CD on maternal request)²⁰. Occasionally CD is performed on maternal request because of a fear of excessive pain and fear of damage to the vagina and perineum²¹. Fear of childbirth is present in about 3% to 8% of women, who should be reassured of adequate maternal pain relief in labor. Increased maternal risks attributed to vaginal delivery also include urinary and faecal incontinence, pelvic prolapse, and sexual dysfunction²².

POSSIBLE FACTORS AFFECTING PRIMARY CESAREAN SECTION²²⁻²⁷



Savita Somalwar et² al conducted a cross-sectional Study of Primary Cesarean Section in Multiparous Women in Central India at the Department of Obstetrics and Gynaecology, N.K.P. Salve Institute of Medical Sciences, Nagpur, Maharashtra, India and the Department of Obstetrics and Gynaecology, Adesh Institute of Medical Sciences & Research, Bathinda, Punjab, India for 21 months from December 2014 to 30 November 2016. Non-reassuring foetal status (47%), malpresentation (13%) and thick meconium-stained liquor (13%) were the three most predominant reasons for primary caesarean delivery in the majority of multigravida women. The incidence of primary cesarean section in multiparous women was 5.73% of all deliveries and 10.89% of all cesarean sections. Postpartum haemorrhage (12%) was the most frequent intraoperative complication. fever (6%) and wound discharge (5%) were the most frequent postoperative problems³. Out of the 205 babies, 70 (34.14%) infants were admitted to the NICU, 60 (30.73%) had newborn morbidity and 7 (3.41%) experienced neonatal death. 35 (17.07%) Premature baby care was the newborn morbidity that was most prevalent³. The limitation of the study was small sample size and socioeconomic status were not studied.

Jyothi H Rao et²⁸ al performed a cross-sectional study of primary caesarean section in multiparous women at Basaveshwar teaching and general hospital and Sangameshwar hospital in Gulbarga for 18 months. The primary caesarean rate in multigravida was 10.28%. The most indication was malpresentation (33.5%), antepartum haemorrhage (23.5%) and CPD (18.5). 14% of women experienced postoperative morbidity wound infection (7.5%), UTI (2.0%), febrile morbidity (3.5%), respiratory infections tract infections, and secondary PPH (0.5%). 14 of 200 babies were stillborn due to cord prolapse, abruption, placenta previa, and obstructed labor³³. There was 33 NICU admission due to septicemia, MAS, convulsion and

congenital anomaly. The limitation of the study was Intraoperative complications and demographic variables were not studied.

US Hangarga et al²⁹ conducted an observational study From January 2018 to December 2018 on a clinical trial on primary caesarean sections in multiparous women in District Hospital in Dharwad³⁴. The incidence of primary cesarean section in multiparous women is 2.7%. The most common indication of primary cesarean section is severe oligohydramnios (22%), foetal distress (15.4%) and breech presentation (14%). 48 out of 84 patients required blood transfusions during or immediately after surgery. post-operative morbidity was seen in 6 cases i.e 1 paralytic ileus, 2 puerperal fever, 1 urinary tract infection, and 2 wound gaping. 7 (8.4%) of 87 were stillbirths of which 2 (28.5%) placenta previa, 2 (28.5%) fetal distress, each one case of abruption placenta (14.2%), cord prolapse (14.2%) and obstructed labor (14.2%) .limitation of the study was small sample size and information regarding NICU admission is not mentioned.

Nidhi Meena et al³⁰ conducted a retrospective, record-based research of the indication of primary caesarean section in multigravida hospitalised at the Department of Obstetrics and Gynaecology, Jhalawar Medical College from January 2021 to march 2021. 208 patients in all were involved in the research. The most common three indications for primary LSCS in multigravida patients were fetal distress 46 (22.22%) cases followed by malpresentation in 38 (18.36%) cases, meconium-stained liquor with fetal distress in 23 (11.05%). The limitation of this study is that it was purely a record-based study, small sample size, and maternal and fetal outcomes were not studied.

Desai E. et al³¹ conducted a randomised hospital-based study of primary caesarean sections in multipara in the Dhiraj General Hospital's Obstetrics and

Gynecology Department in Pipariya, Ta-Waghodia, Vadodara, Gujarat, India. The most common indication was fetal distress 22 (25.58%), APH 19 (22.09%), CPD 17 (19.77%) and abnormal presentation 15 (17.44%)³⁶. Maternal morbidity was seen in 23 cases of which wound sepsis 9 (10.47%), abdominal distension 12 (13.95%), pyrexia 10 (11.63%), and UTI 2 (2.33%). The limitation of the study was small sample size, incidence of primary cesarean section and neonatal outcome were not studied.

P. Sree Sailaja et al³² conducted a prospective Study of Primary Cesarean Section in Multigravida at the Obstetrics and Gynaecology Department at GIMSR Teaching Hospital From January 2017 to December 2018. The incidence of primary cesarean section in multigravida was 6.34%. The most common indication of primary cesarean section in multigravida was fetal distress (29.5%), Cephalopelvic disproportion occurred (17%), and malpresentation (10.5%). 15.8% of patients had intraoperative complication of which atonic PPH (11.57%), traumatic PPH (4.21%) .Puerperal pyrexia (23.10%) was the most common post-operative complication.20 (21.05%) infants were admitted to the NICU of which meconium aspiration 7 (7.37%) and birth asphyxia 4 (4.2%) were two most common causes. The limitation of the study was small sample size and socioeconomic status were not studied.

P Begum et al³³ conducted a study on the Indication and Outcome of Cesarean Section in Multigravida Women with a History of Vaginal Delivery in a Tertiary Care Hospital at the Department of Obstetrics and Gynaecology in Diabetic Association Medical College Hospital in Faridpur, Bangladesh between April 2016 and July 2017. The most common indication of primary cesarean section in multigravida is fetal distress 37 (33.6%), obstructed labor 12 (10.9%) and breech 12 (10.9%) .27 of 110 had the post-operative complication of which 12(10.9%) sepsis, URTI 9 (8.2%),

wound infection 3 (2.7%), postoperative ileus 2 (1.8%), and PPH 1 (0.9%). 105 (95.5%) of the new-borns survived the birth³⁸. 3 (2.7%) stillbirths and 2 (1.8%) new-borns deaths were observed³⁸. The limitation of the study was a small sample size, the socioeconomic status, incidence of primary cesarean section and intraoperative finding and complication were not studied.

Preeti Bajaj et al ³⁴ conducted a prospective, randomised trial A Study of Primary Cesarean Section in Multipara Between August 2015 and August 2016 at Government Medical College, Bhavnagar. The incidence of primary caesarean section in multipara was 5.2%³⁹. Foetal distress (25%) ,APH 33 (15.2%) and pre-eclampsia 26 (12%) were common indication for primary cesarean section. Abdominal distension 30 (13.8%) and wound sepsis 12 (5.5%) were the most common maternal morbidity. 44 (20.37%) babies were admitted to NICU. The limitation of the study was the small sample size and intraoperative finding and complication, information regarding NICU admission were not studied.

M. Mallika et al³⁵ conducted prospective research Clinical Study of Primary Cesarean Section in Multiparous Women at the Govt Medical Hospital in Ananthapuramu from January 1 to August 31, 2019. The incidence of primary cesarean section in multigravida is 4.9%. Fetal distress (25%), malpresentations (23.3%), placenta previa 13(10.9%) were the most common indication .35(29.16%) of 120 had maternal morbidity of which wound sepsis 8(6.7%), abdominal distension 5(4.2%) were most common causes. 37(30.83%) of 120 babies were admitted to NICU of which preterm care 14(37.8%), MAS 12(32.4%) and birth asphyxia 3(8.1%). The limitation of the study was small sample size and socioeconomic variables, intraoperative findings and complications, extended operative procedure were not studied.

Summary of review of literature of various studies:

Prevalence of primary cesarean section was about 5.2% ³⁴ to 10.28%²⁸.

Indications of primary cesarean section were fetal distress, malpresentation , APH ²⁸⁻³⁴ .

Maternal complications of primary cesarean section abdominal distension , wound gaping ²⁸⁻³⁴ .

Fetal complications of primary cesarean section were preterm delivery , meconium aspiration ²⁸⁻³⁴ .

Multiparous women who had previous vaginal deliveries may still require a cesarean section for safe outcome of mother and foetus. Though vaginal delivery is always safer than cesarean section, difficult vaginal delivery and obstructed labour carries more morbidity and perinatal mortality when compared to elective cesarean section, Previous vaginal delivery

gives the patient as well as her relatives a false sense of security. In many cases, a cesarean becomes mandatory. The fact that a multipara has had one or more vaginal deliveries should be regarded as an optimistic historical fact, not as a diagnostic criterion for spontaneous delivery of the pregnancy at hand.

MATERIALS AND METHODS

This study was conducted at Dr Prabhakar kore Hospital and MRC, Belagavi attached to KAHER'S Jawaharlal Nehru Medical College during the period of January 2021 to JUNE 2022.

STUDY DESIGN- A Cross Sectional study

STUDY PERIOD - 1 year 6 months (January 2021 to June 2022)

SOURCE OF DATA

The data was collected from the patient record of all multiparous women who have undergone cesarean section for the first time at Dr Prabhakar kore Hospital and MRC, Belagavi attached to KAHER'S Jawaharlal Nehru Medical College.

SAMPLE SIZE

The minimum sample size formula based on prevalence rate is

$$n = \frac{z_{\alpha}^2 P(1-p)}{d^2}$$

where P is the percentage of prevalence and d is the percentage likely difference in the prevalence.

z_{α} is linked with the level of significance. For 5% level of the significance $z_{\alpha} = 1.96$.

Ref:

With P = 28.6% and d = 10% of P = 25%, the sample size is 280

To get confirmative result, sample size can be increased up to 300

OBJECTIVE

PRIMARY OBJECTIVE:

To study indications and outcomes of primary cesarean section in multigravida.

SECONDARY OBJECTIVE:

To study the incidence of primary cesarean section in multigravida.

SELECTION CRITERIA

Inclusion criteria-

Gestational age more than 28 weeks.

Multigravida who underwent primary cesarean section

Exclusion criteria-

Patient who had a previous cesarean section or hysterotomy

Patient not willing to participate in study

ETHICAL CLEARANCE

Before the commencement of study, the ethical clearance from the ethical and research committee, Jawaharlal Nehru medical college, Belagavi was obtained.

(Annexure 3 -Letter number MDC/DOME/180 dated 25/01/2021)

WAIVER OF CONSENT- waiver of consent was sought and obtained as all data was procured through the patient record, before the commencement of study

STATISTICAL ANALYSIS

The data obtained was coded and entered in Microsoft excel worksheet. The categorical data was expressed in terms of percentage and continuous data was expressed as mean \pm standard deviation.

METHOD OF COLLECTION OF DATA

All the multigravida women who have previously delivered vaginally admitted in labor room or ward above 28 weeks of gestational age and underwent cesarean section for the first time were recruited in the study and data was collected using proforma.

Data regarding age, socioeconomic status, registration status, risk factor, period of gestation, stage of labor, indications of cesarean section, intraoperative findings, blood loss, extended operative procedure, neonatal outcome, APGAR score at 1 min and 5 min, birth weight, gender, NICU admission, blood transfusion, post operative complications, condition of neonate at discharge were collected from case record.

RESULTS

CONSORT DIAGRAM

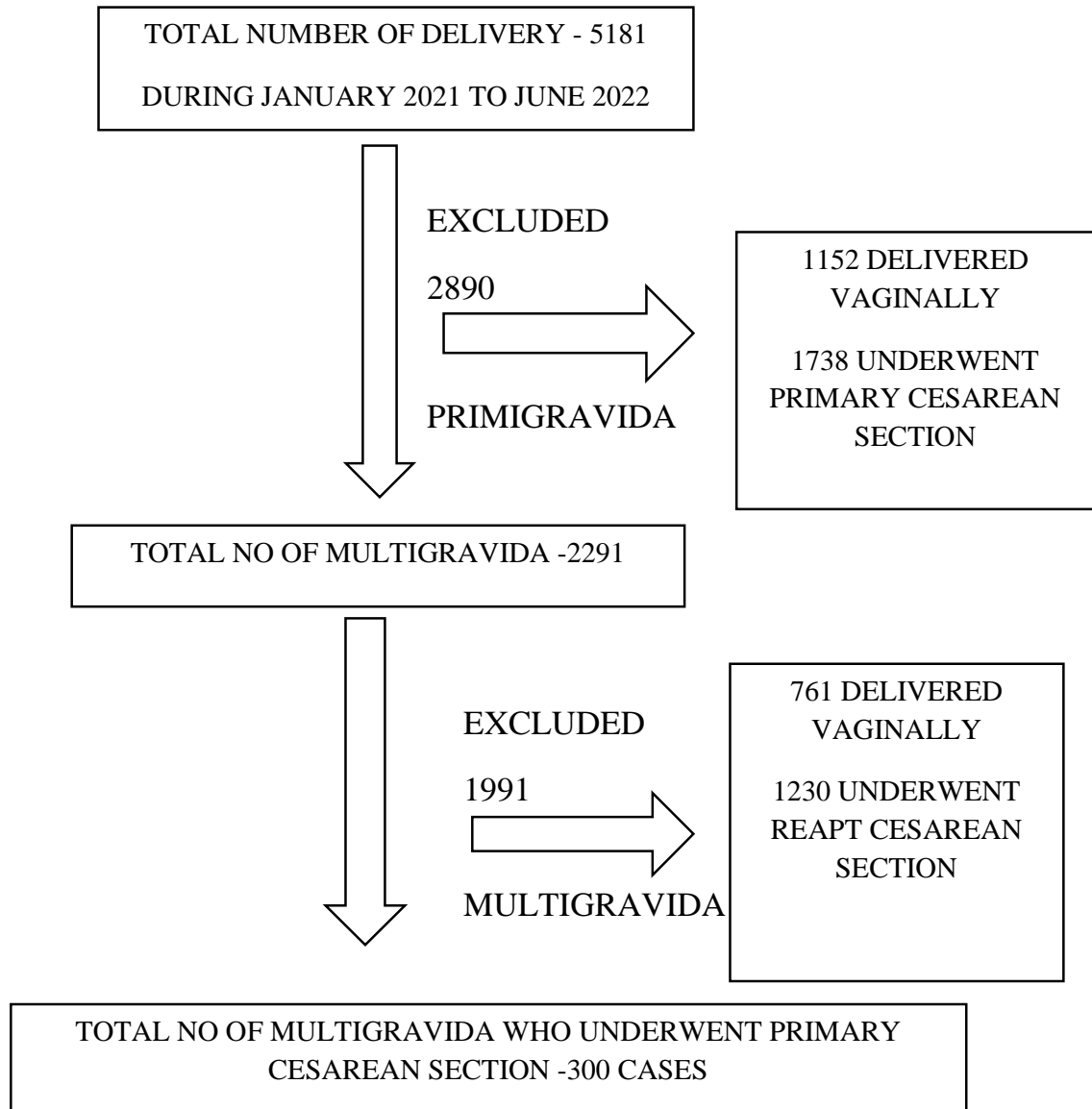


Table 1: Type of delivery(vaginal and LSCS)wise distribution

Type of delivery	Number n=5181	Percentage (%)
Total no of Primigravida who delivered vaginally	1152	22.24
Total no of Primigravida who underwent primary cesarean section	1738	33.55
Total no of multigravida who delivered vaginally	761	14.69
Total no of multigravida who underwent repeat cesarean section	1230	23.73
Total no of multigravida who underwent primary cesarean section	300	5.79
Total	5181	100

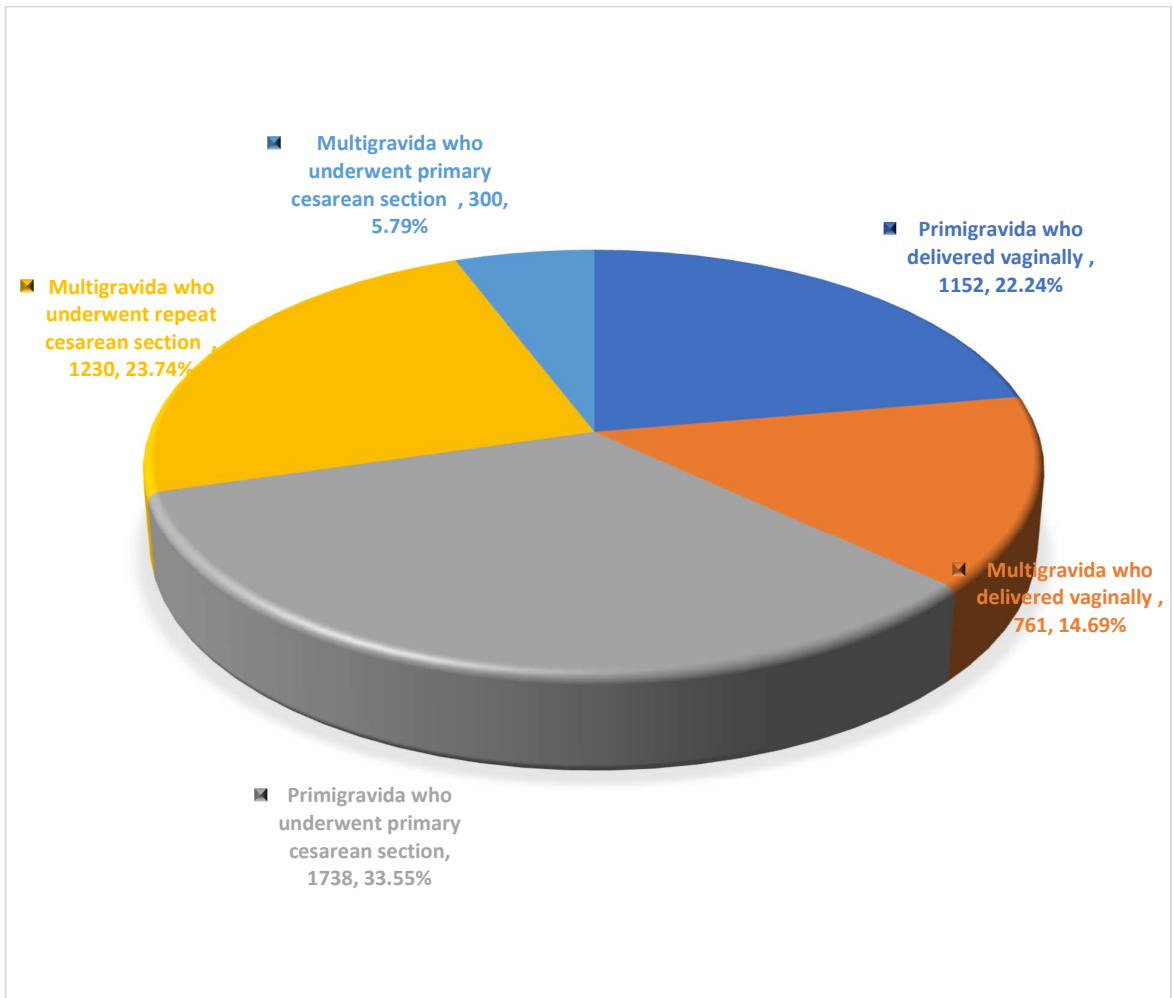


Table 2: Age wise distribution

Age in years	Number n=300	Percentage (%)
18-20 years	7	2.33
21-25 years	90	30
26-30 years	158	52.67
31-35 years	35	11.67
36-40 years	10	3.33
Total	300	100

Mean age of women was 25.6 years . In present study among 300 subjects,158 subjects (52.67%) were between age group of 26–30 years, 90 subjects (30%) were aged between 21–25 years of age, 35 subjects (11.67%) were aged between 31–35 years of age ,10 subjects (3.33%) were between 36–40 years of age, and 7 subjects (2.33%) were in the 18–20 years of age .

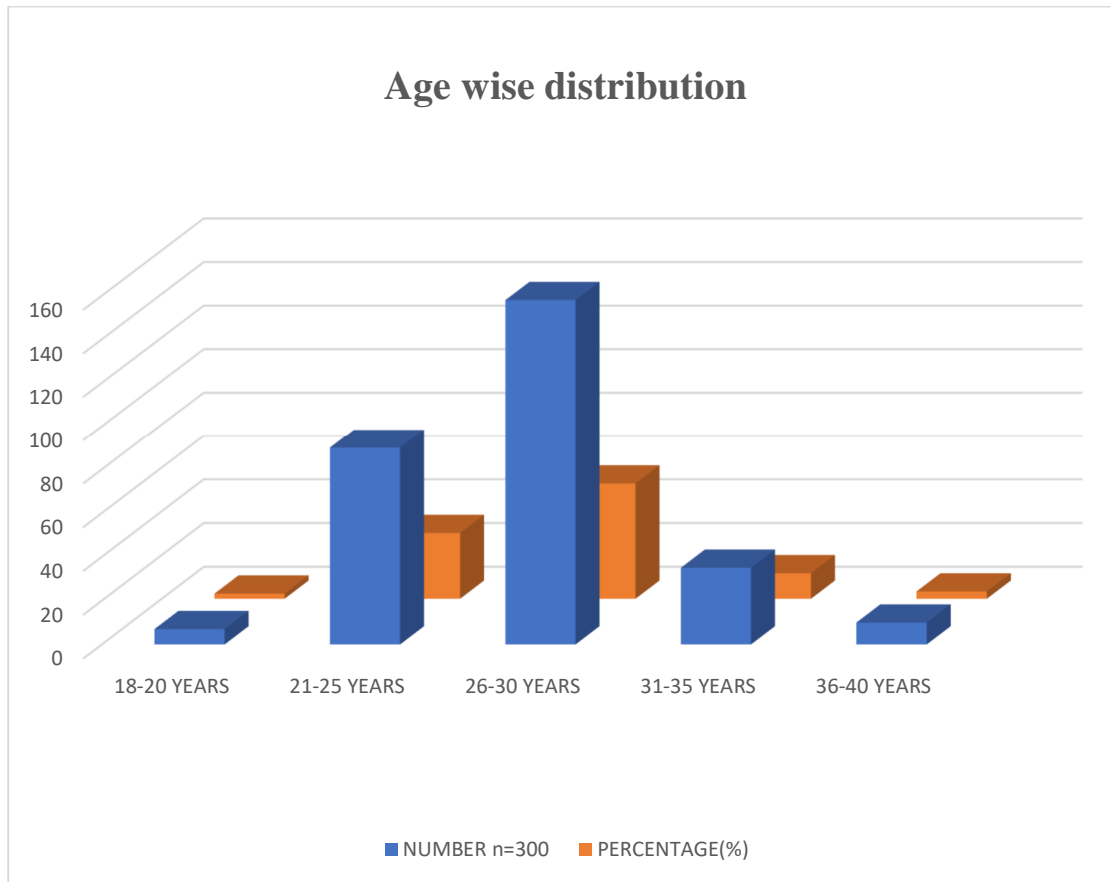


Table 3: Socioeconomic status distribution.

Socio-economic status	Number n=300	Percentage(%)
Class 1	88	29.33
Class 2	78	26
Class 3	52	17.34
Class 4	15	5
Class 5	67	22.33
TOTAL	300	100

According to modified B.G Prasad classification among 300 subjects, 88 subjects (29.33%) belonged to class 1 (upper class), 78 subjects (26%) belonged to class 2 (upper middle), 52 subjects (17.34%) belonged to class 3 (middle class), 15 subjects (5%) belonged to class 4 (lower middle class), 67 subjects (22.33%) belonged to class 5 (lower class).

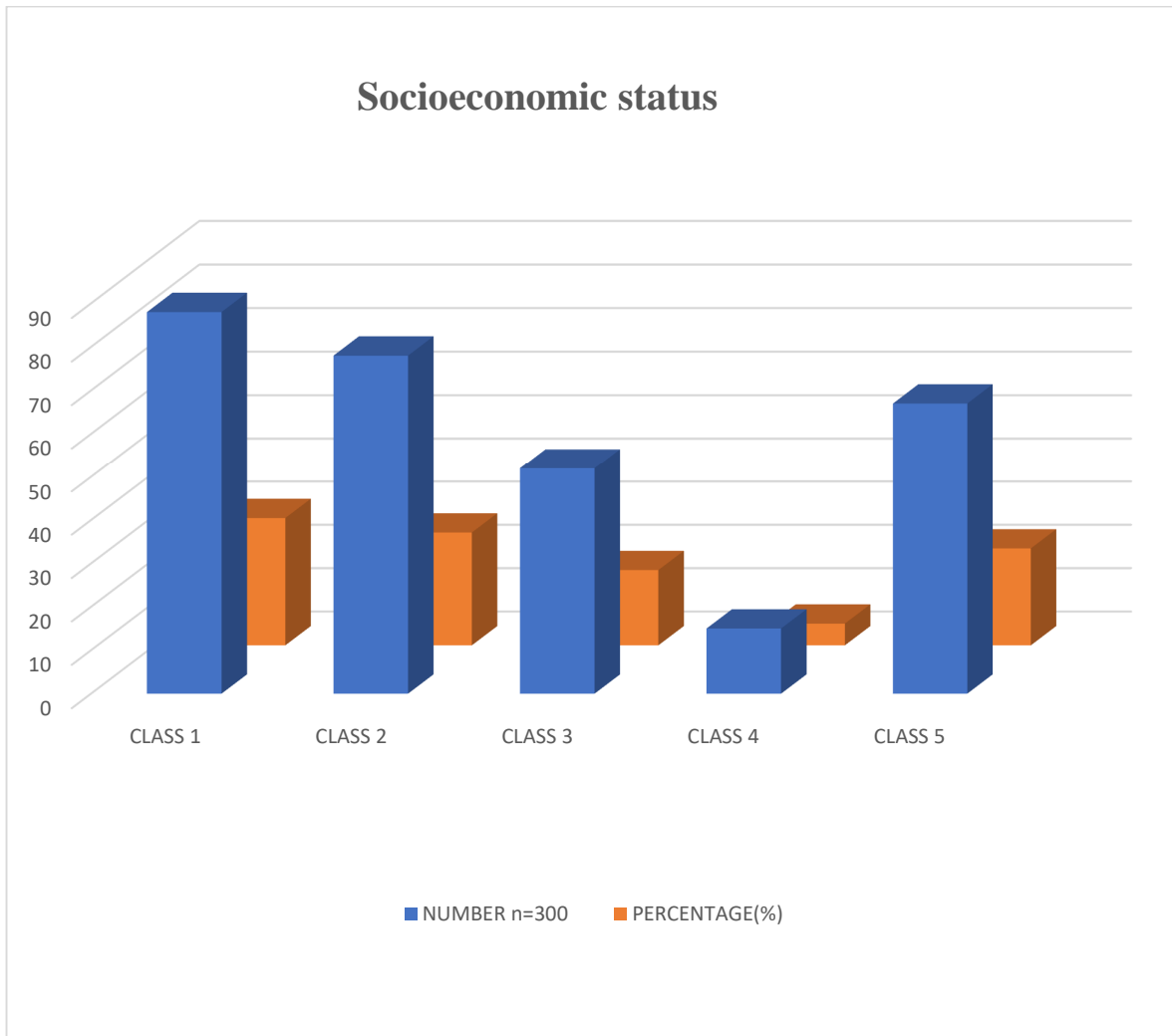


Table 4: Antenatal registration

Registration	Number n=300	Percentage(%)
Registered	138	46
Unregistered	162	54
Total	300	100

Registered antenatal case meaning minimum of 4 antenatal visit. In present study among 300 subjects maximum number of women were unregistered 162(54%) and 138(46%) were registered.

Table 5: Risk wise distribution

Type of risk	Number n=300	Percentage(%)
Low risk	68	22.67
High risk	232	77.33
Total	300	100

In the present study, 232(77.33%) women were in high risk category

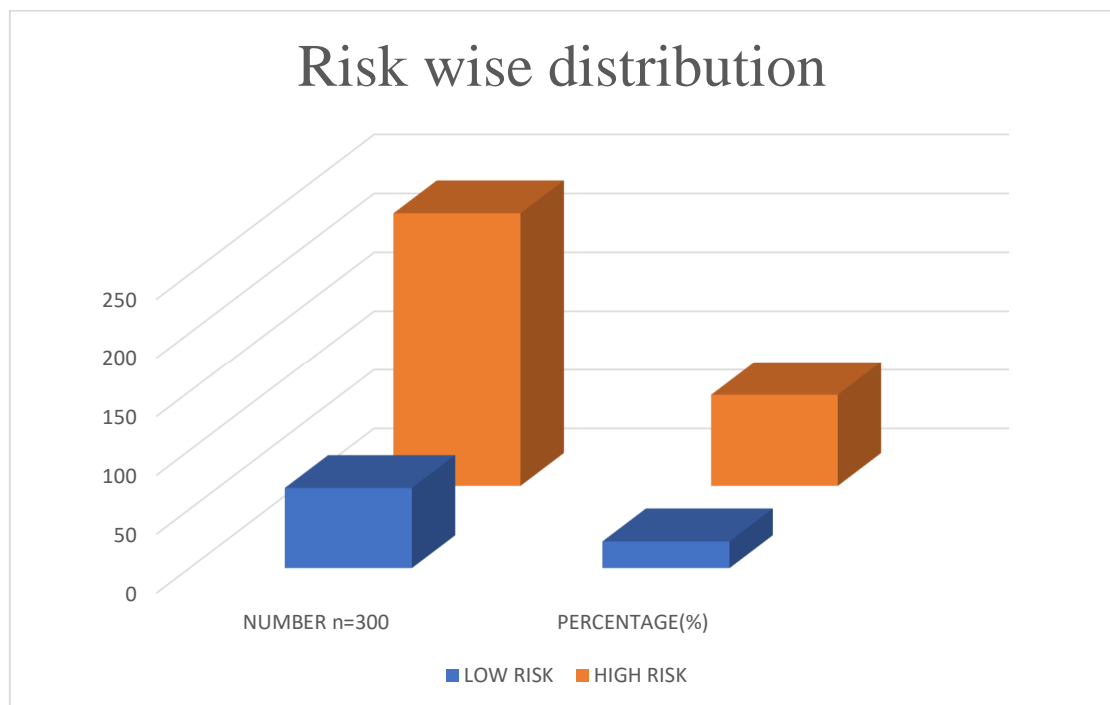
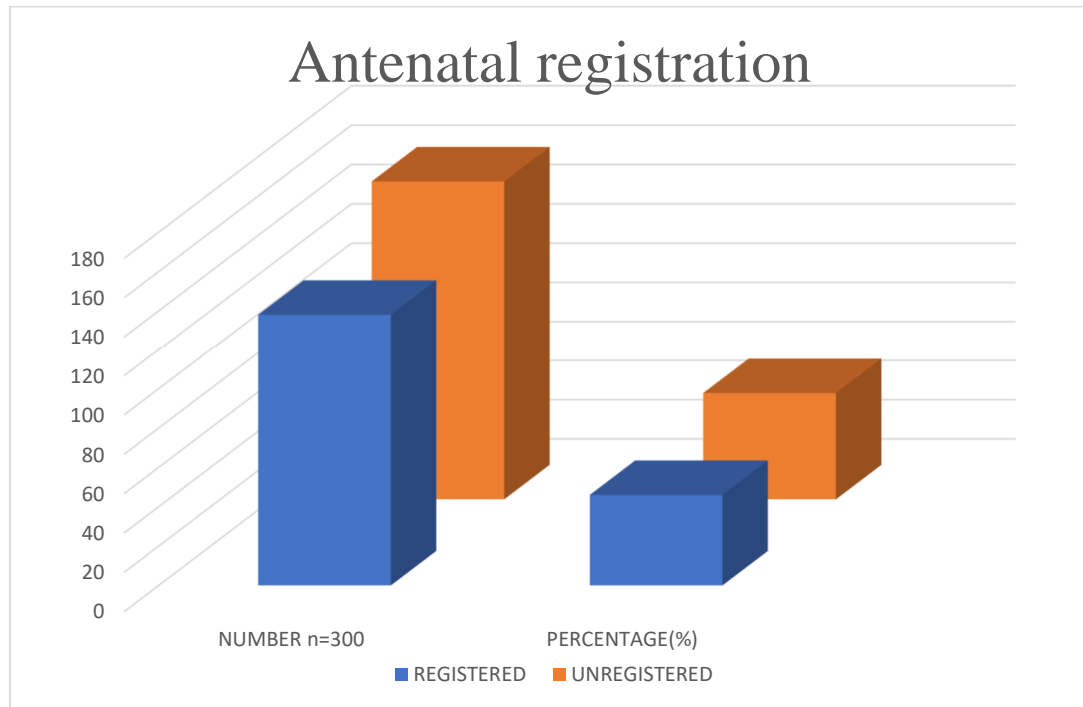


Table 6: Gravida based distribution

Gravida	Number n=300	Percentage(%)
G2	204	68
G3	80	26.67
G4	14	4.66
G5	2	0.67
Total	300	100

In present study among 300 subjects 204 subjects (68%) had 1 prior vaginal delivery, 80 subjects (26.67%) had 2 prior vaginal delivery, 14 subjects (4.66%) had 3 prior vaginal delivery, and 2 subjects (0.67%) had 4 prior vaginal delivery.

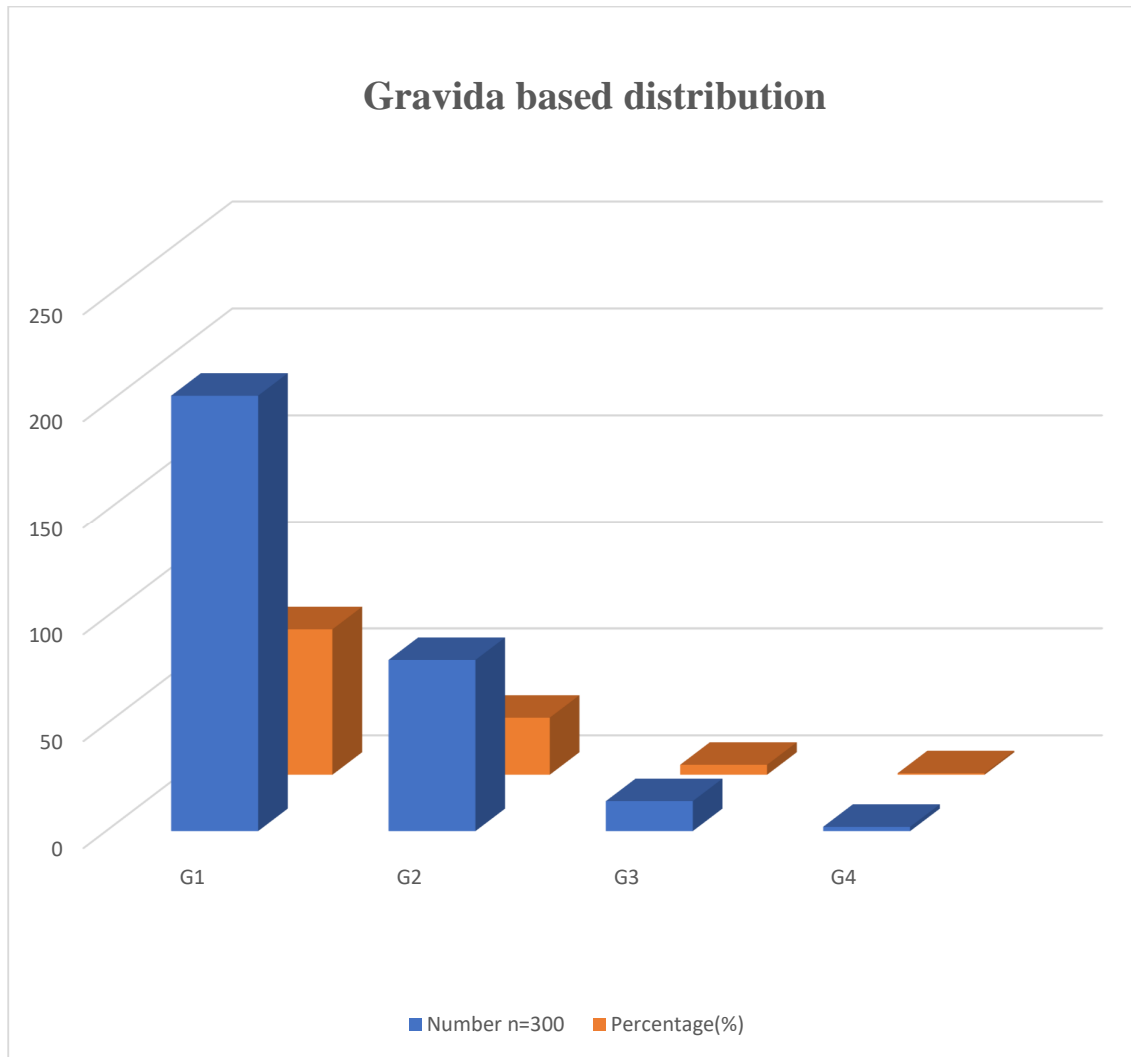


Table 7: Period of gestation distribution

Period of gestation	Number n=300	Percentage(%)
28 to 31 weeks ⁺⁶	8	2.67
32 to 33 weeks ⁺⁶	7	2.33
34 to 36 weeks ⁺⁶	69	23
37 to 39 weeks ⁺⁶	160	53.33
40 to 41 weeks ⁺⁶	53	17.67
>42 weeks	3	1
Total	300	100

In present study among 300 subjects 160 subjects (53.33%) were between 37 weeks to 39 weeks ⁺⁶ POG, 69 subjects (23%) were between 37 weeks to 39 weeks days⁺⁶ POG , 53 subjects (17.67%) were between 40 weeks to 41weeks ⁺⁶ d POG, 8 subjects (2.67%) were between 28 weeks to 31 weeks ⁺⁶ POG, 7 subjects (2.33%) were between 32 weeks to 33 weeks ⁺⁶ POG and 3 subjects (1%) more than 42 weeks POG.

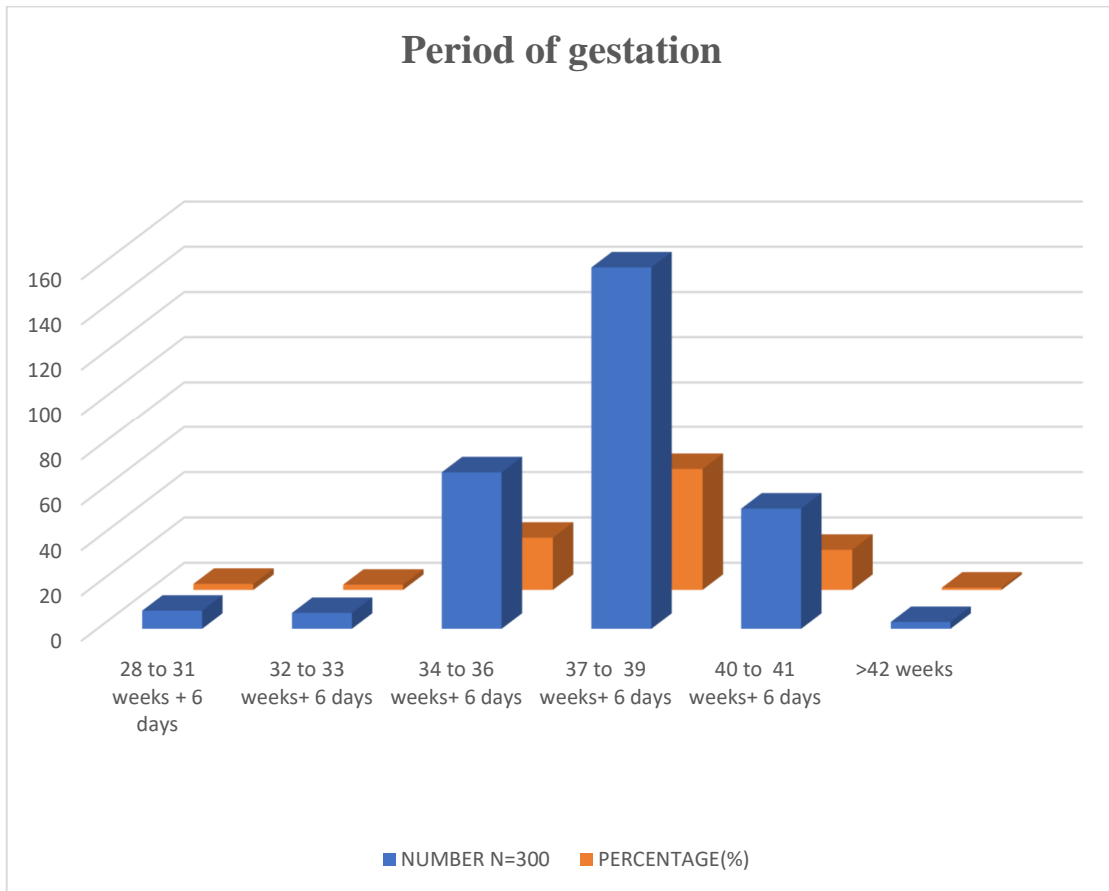


Table 8: Emergency v/s Elective

Type of cesarean section	Number n=300	Percentage(%)
Preterm emergency	64	21.33
Preterm elective	24	8
Full term emergency	185	61.67
Full term elective	27	9
Total	300	100

In present study among 300 subjects 185 subjects (61.67%) underwent full term emergency cesarean section , 64 subjects (21.33%) underwent preterm emergency cesarean section ,27 subjects (9%) underwent full term elective cesarean section and 24 subjects (8%) underwent preterm elective cesarean section.

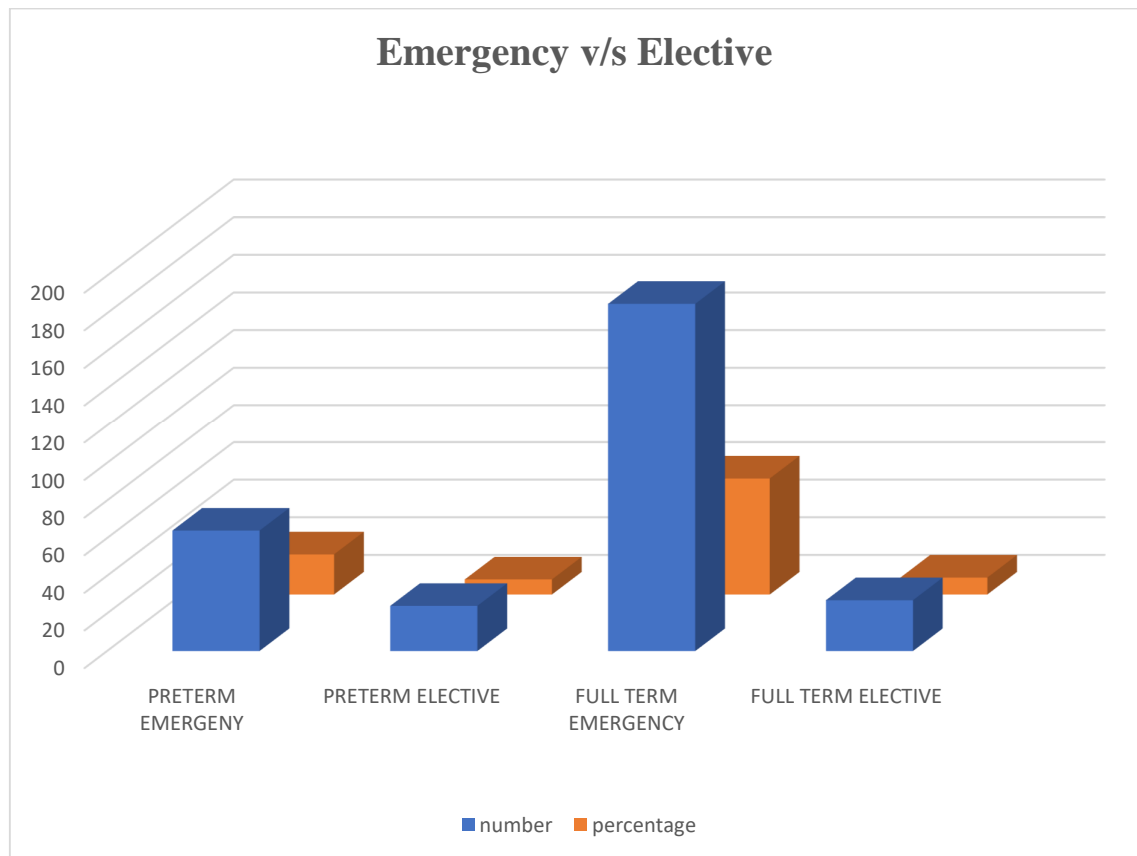


Table 9: Stage of labor

Stage of labor	Number n=300	Percentage(%)
Before onset of labor	51	17
First stage	245	81.67
Second stage	4	1.33
Total	300	100

In present study among 300 subjects primary cesarean section were done in 51 subjects (17%) before onset of labor , 245 subjects (81.67%) in first stage of labor and 4 subjects (1.33%) in second stage of labor.

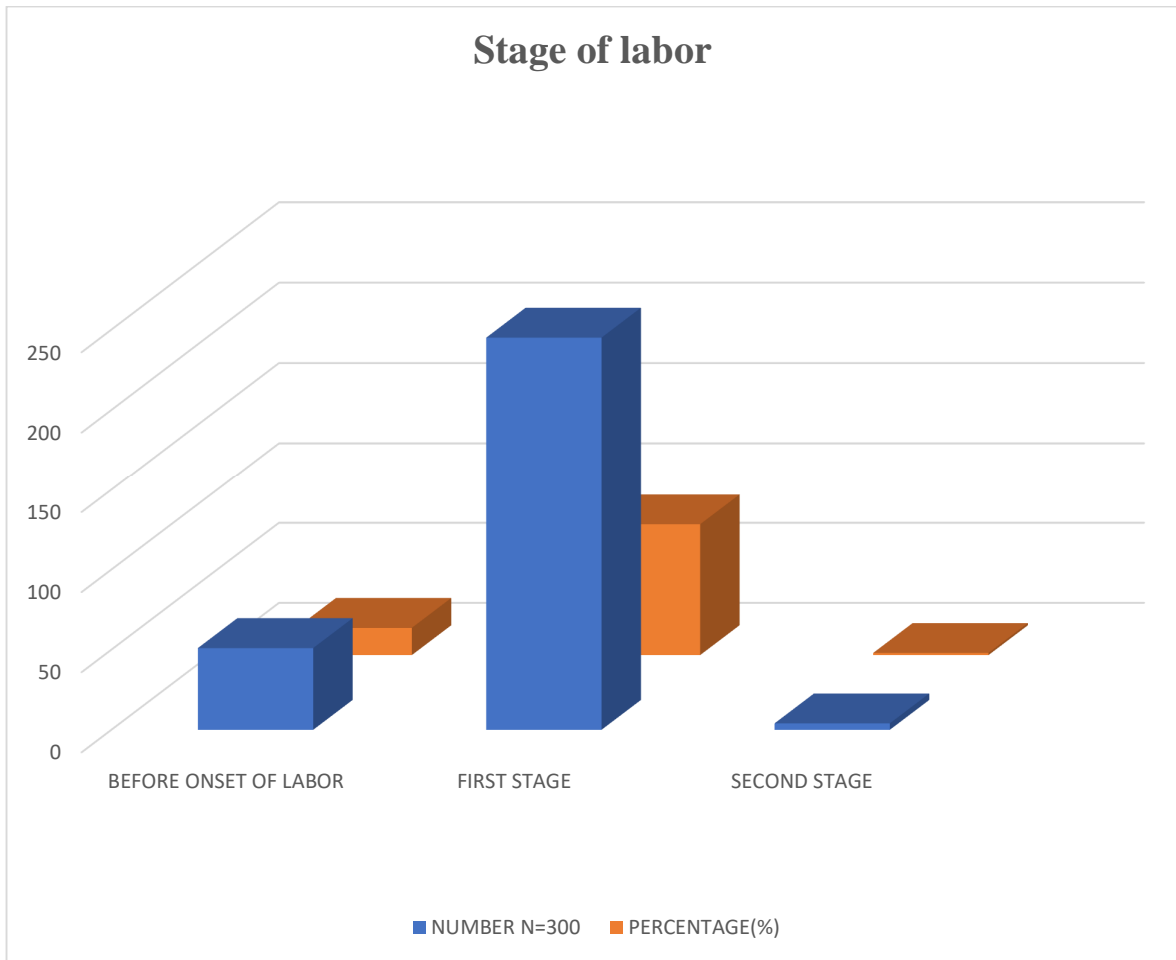


Table 9: Indications

Indications	Number n=300	Percentage(%)
Fetal distress	67	22.33
Malpresentation	42	14
Thick meconium stained liquor with non - reassuring NST	30	10
Severe pre-eclampsia and eclampsia	27	9
Twin gestation	24	8
Fetal growth restriction with doppler changes	23	7.67
Antepartum haemorrhage	16	5.34
oligamnios	16	5.34
CDMR	14	4.67
Cephalopelvic disproportion	10	3.33
Precious pregnancy	10	3.33
BOH	6	2
Deep transverse arrest	3	1
Failed induction	3	1
Cervical dystocia	1	0.33
Obstructed labor	1	0.33
Others	7	2.33
Total	300	100

The most common indication were fetal distress 67(22.33%), malpresentation 42(14%) ,thick meconium stained liquor with non -reassuring NST 30(10%), severe pre-eclampsia and eclampsia 27(9%).

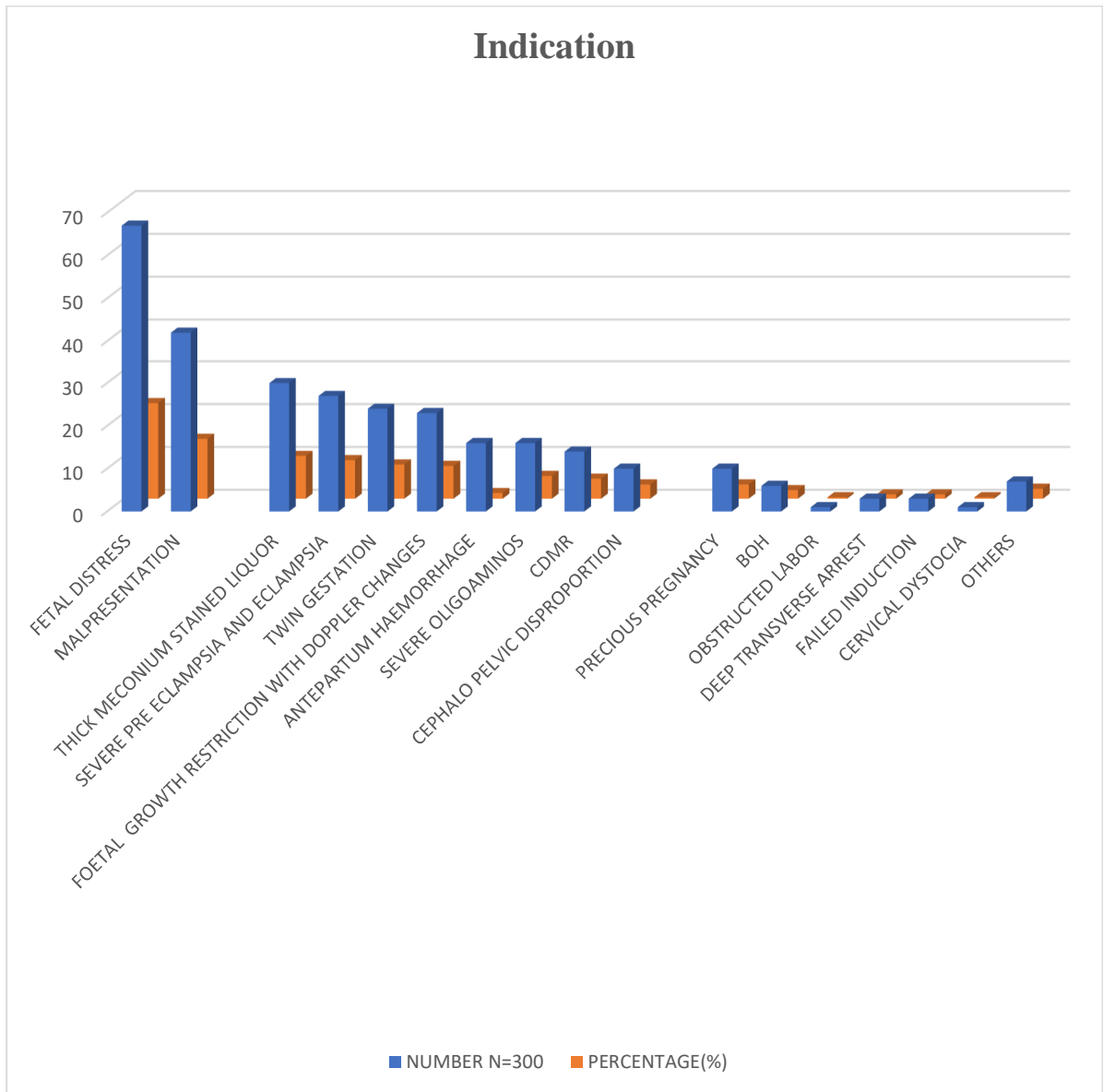


Table11: Intra operative findings

Intraoperative complication	Number n=208	Percentage=69.32 (%)
Thick msl	62	20.66
Cord around neck	42	14
Placenta previa	12	4
Extension of incision	30	10
Retroplacental clots	5	1.67
Blood stained liquor	4	1.33
PPH	4	1.33
Thinned out lower segment	32	10.67
Bladder injury	1	0.33
Couvelaires uterus	3	1
Fibroid	9	3
Ovarian cyst	4	1.33
Total	208	69.32

In present study among 300 subjects 208(69.32%) subjects had significant intra operative findings of which 62 subjects (20.66%) thick msl, 42 subjects (14%) cord around the neck, 32 subjects (10.67%) thinned out lower segment , 30 subjects (10%) extension of uterine incision , 12 subjects (4%) placenta previa, 5 subjects (1.67%) retroplacental clot , 4 subjects (1.33%) blood stained liquor , 3 subjects (1%) couvelaires uterus, 9 subjects (3%) fibroid , 4 subjects (1.33%) PPH,4 subjects (1.33%) ovarian cyst.

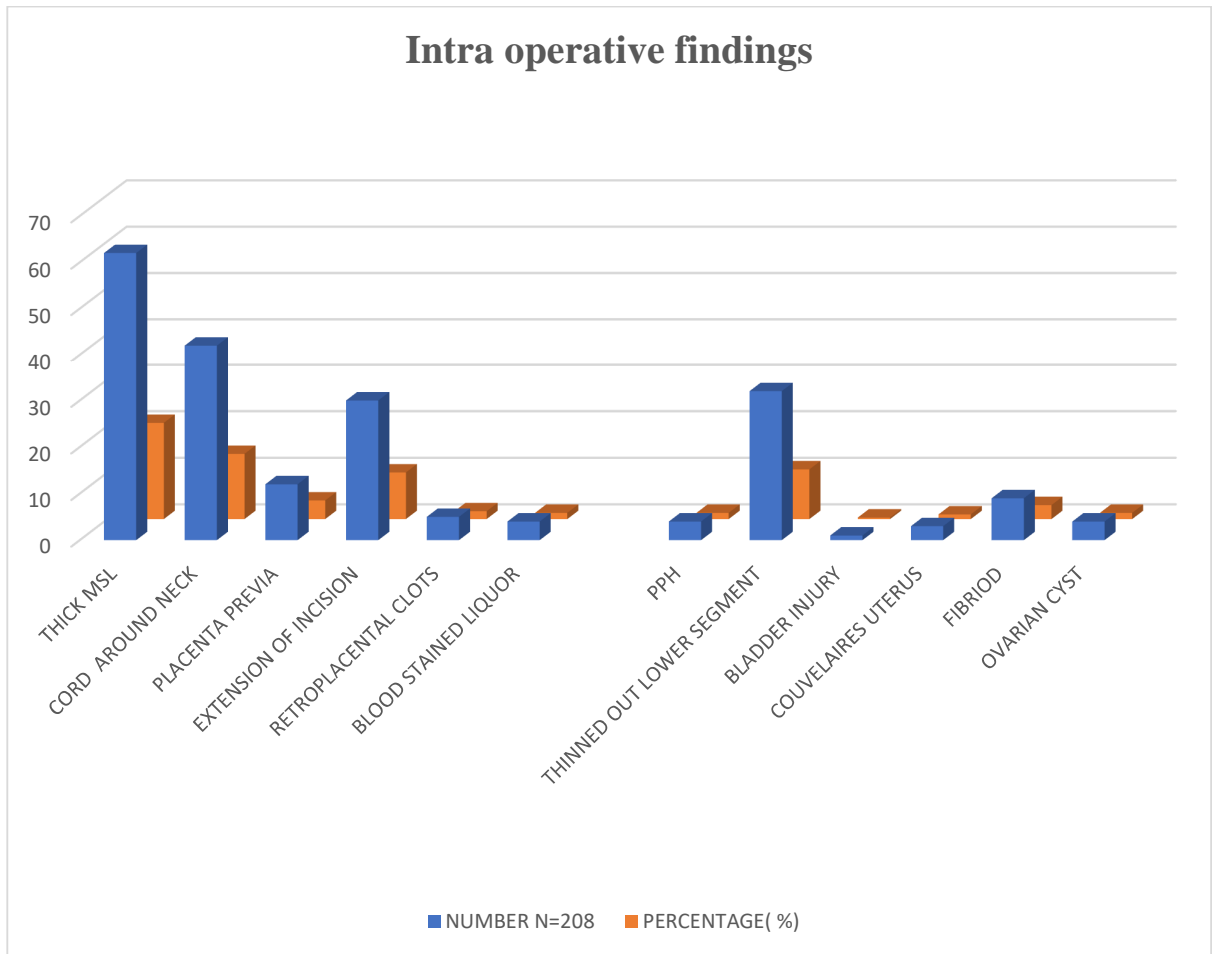


Table 12:Extended operative procedure

Extended operative procedure	Number n=50	Percentage=16.65 (%)
Repair of extension	30	10
Uterine artery ligation	10	3.33
B/L internal iliac artery ligation	2	0.66
Hayman suturing	6	2
Peripartum hysterectomy	1	0.33
Bladder repair	1	0.33
Total	50	16.65

In present study among 300 subjects 50 subjects (16.65%) underwent extended operative procedure of which 30 subjects (10%) repair of uterine extension, 10 subjects (3.33%) uterine artery ligation, 6 subjects (2%) Haymans suturing , 2 subjects (0.66%) B/L internal artery ligation, 1 subjects underwent both bladder repair and peripartum hysterectomy accounting to (0.66%).

Extended operative procedure

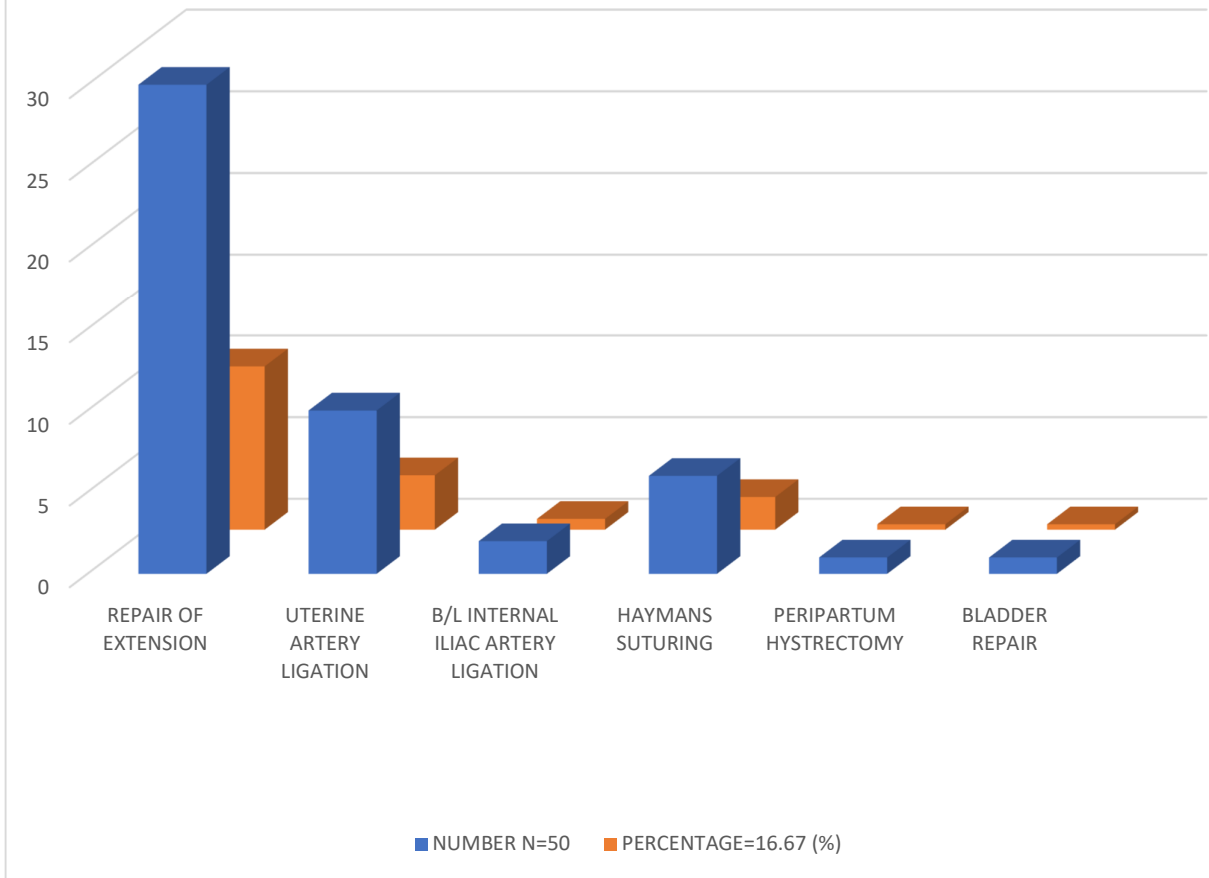


Table 13: Post operative complication

Post operative complication	Number n=87	Percentage=29 (%)
Abdominal distension	12	4
Wound gape	21	7
Paralytic ileus	3	1
Fever	16	5.33
Urinary tract infection	6	2
Upper respiratory tract infection	13	4.34
Post spinal headache	16	5.33
Total	87	29

In present study among 300 subjects 87(29%) had post operative complication 21 subjects (7 %) wound gape, 16 subjects (5.33%) fever , 16 subjects (5.33%) post spinal headache, 12 subjects (4%) abdominal distension, 13 subjects (4.34%) URTI ,6 subjects (2%) UTI and 3 subjects (1%) paralytic ileus.

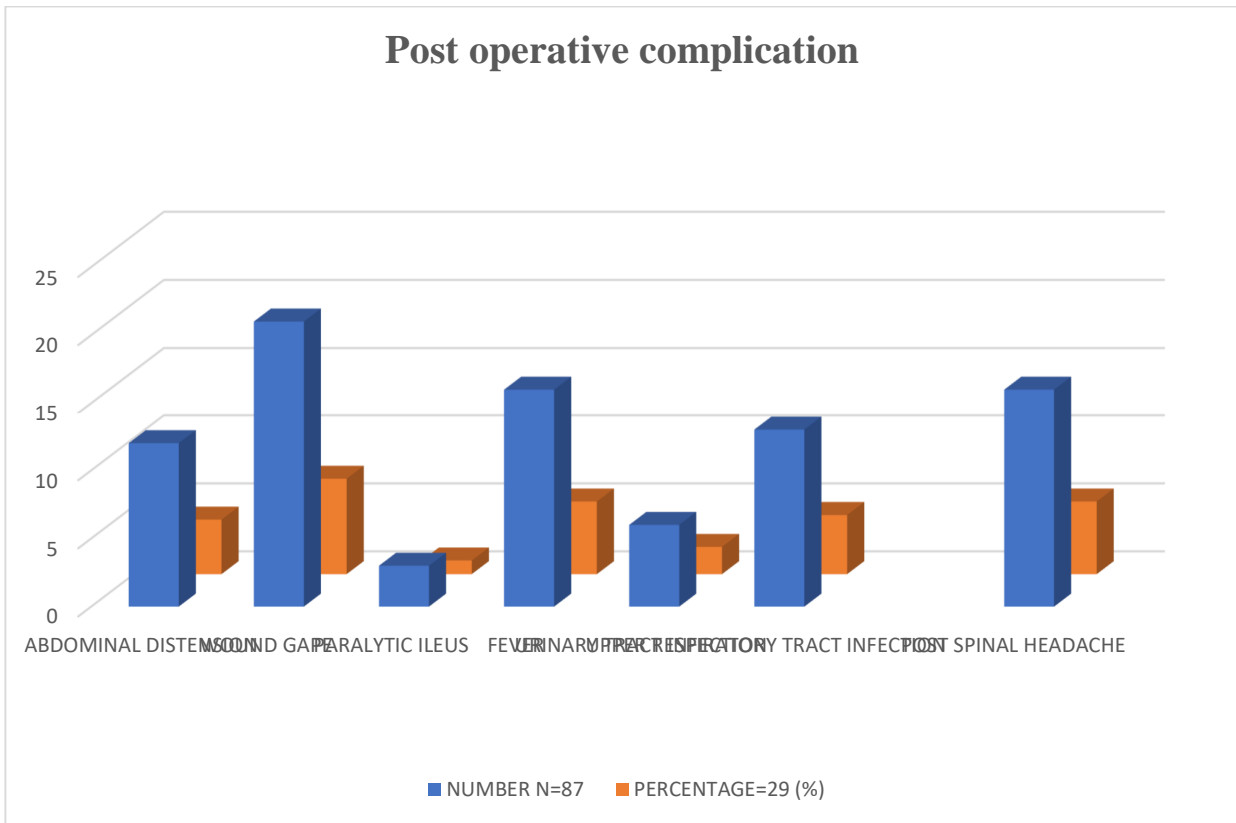


Table14: Need for blood and blood products

Blood transfusion	Number n=300	Percentage(%)
Yes	34	11.33
No	266	88.67
Total	300	100

In the present study 34 (11.33%) subject needed blood and blood products

Table 15: Outcome of birth

Condition of baby	Number n=324	Percentage(%)
Live birth	320	98.76
Fresh still birth	3	0.93
Macerated still birth	1	0.31
Total	324	100%

In the present study there were 320 (98.76%) live birth, 3 (0.93%) fresh still birth and 1 (0.31%) macerated still birth.

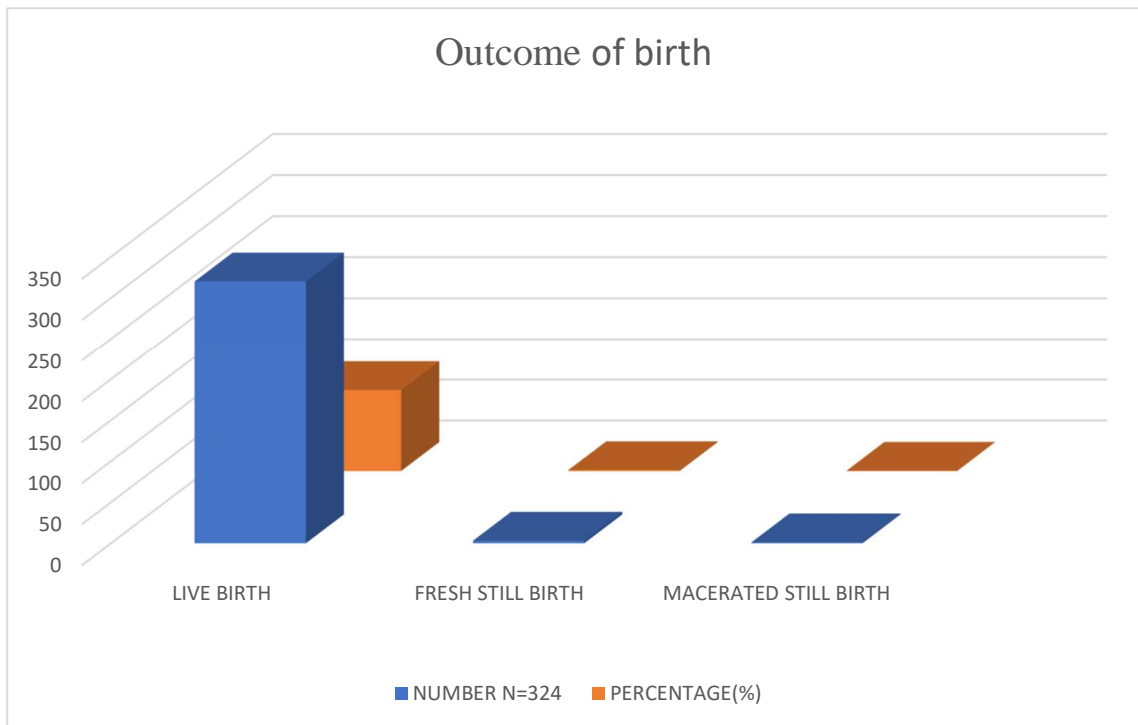
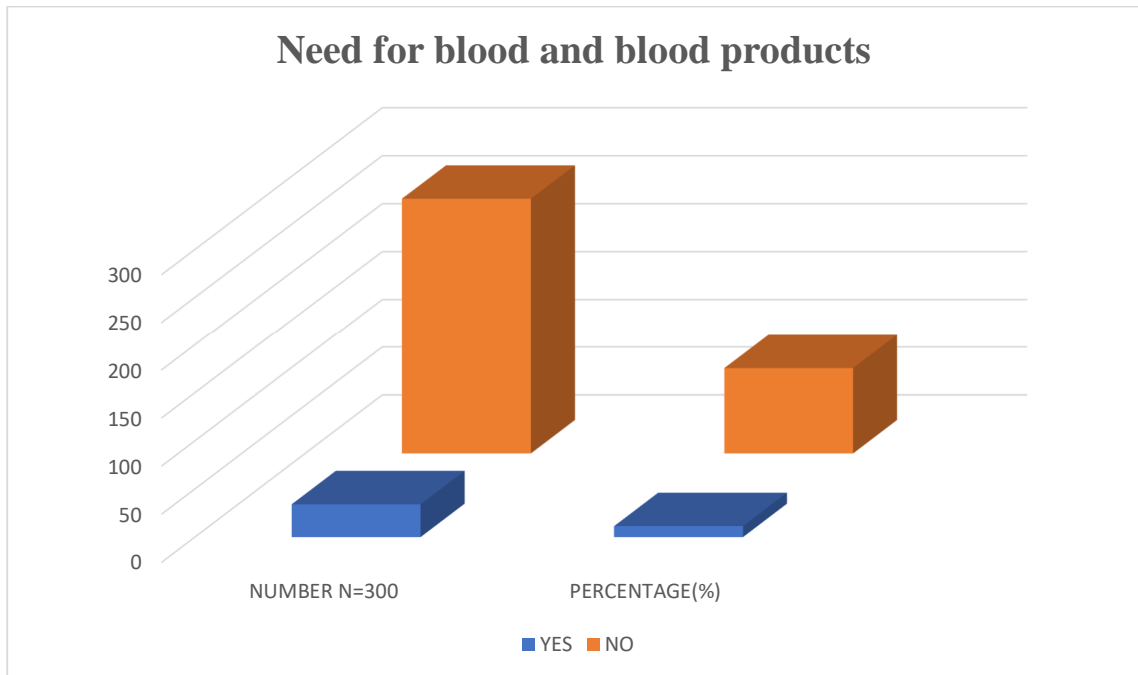


Table 16: Birth weight distribution

Birth weight	Number n= 324	Percentage(%)
0.7-1.0 kg	6	1.88
1.1-1.5 kg	24	7.40
1.6-2.0 kg	37	11.42
2.1-2.5 kg	63	19.45
2.6-3.0 kg	86	26.55
3.1-3.5 kg	83	25.60
3.6-4 kg	24	7.40
> 4.1 kg	1	0.30
Total	324	100

In present study among 300 deliveries in order of frequency 86 babies (26.55%) were between 2.6 -3.0 kg, 83 babies (25.60%) were between 3.1-3.5 kg, 63 babies (19.45%) were between 2.1-2.5 kg, 37 babies (11.42%) were between 1.6-2.0kg, 24 babies (7.40%) were between 3.6 kg-4 kg, 24 babies (7.40%) were between 1.1-1.5 kg, 6 babies (1.88%) were between 0.7-1.0 kg and 1 baby (0.30%) more than 4.1 kg .

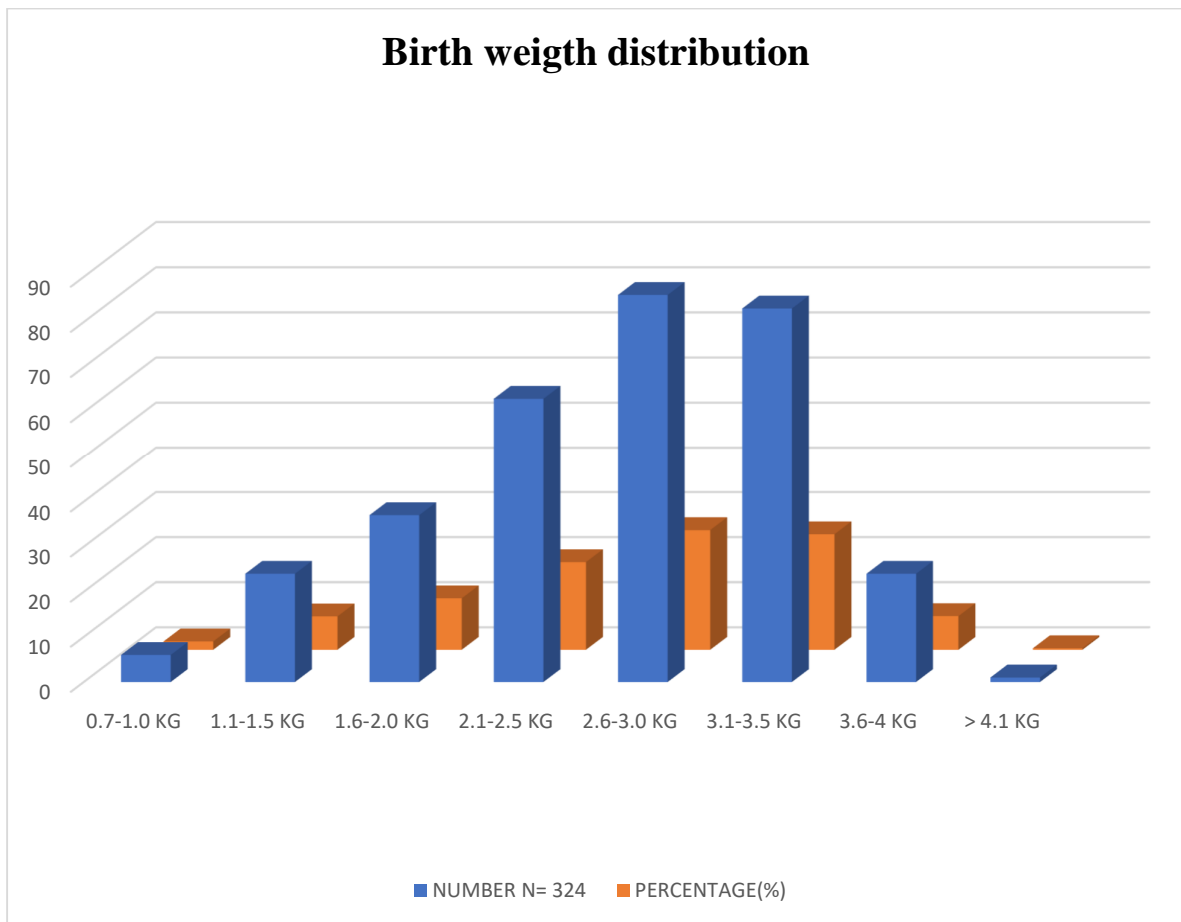


Table 17:APGAR score at 1 min

APGAR score at 1 min	Number n=324	Percentage(%)
0	4	1.23
1	1	0.30
2	1	0.31
3	1	0.31
4	54	16.67
5	21	6.48
6	36	11.11
7	110	33.95
8	54	16.67
9	42	12.97
Total	324	100

In present study mean APGAR score at 1 min is 7.17 ± 0.56 .

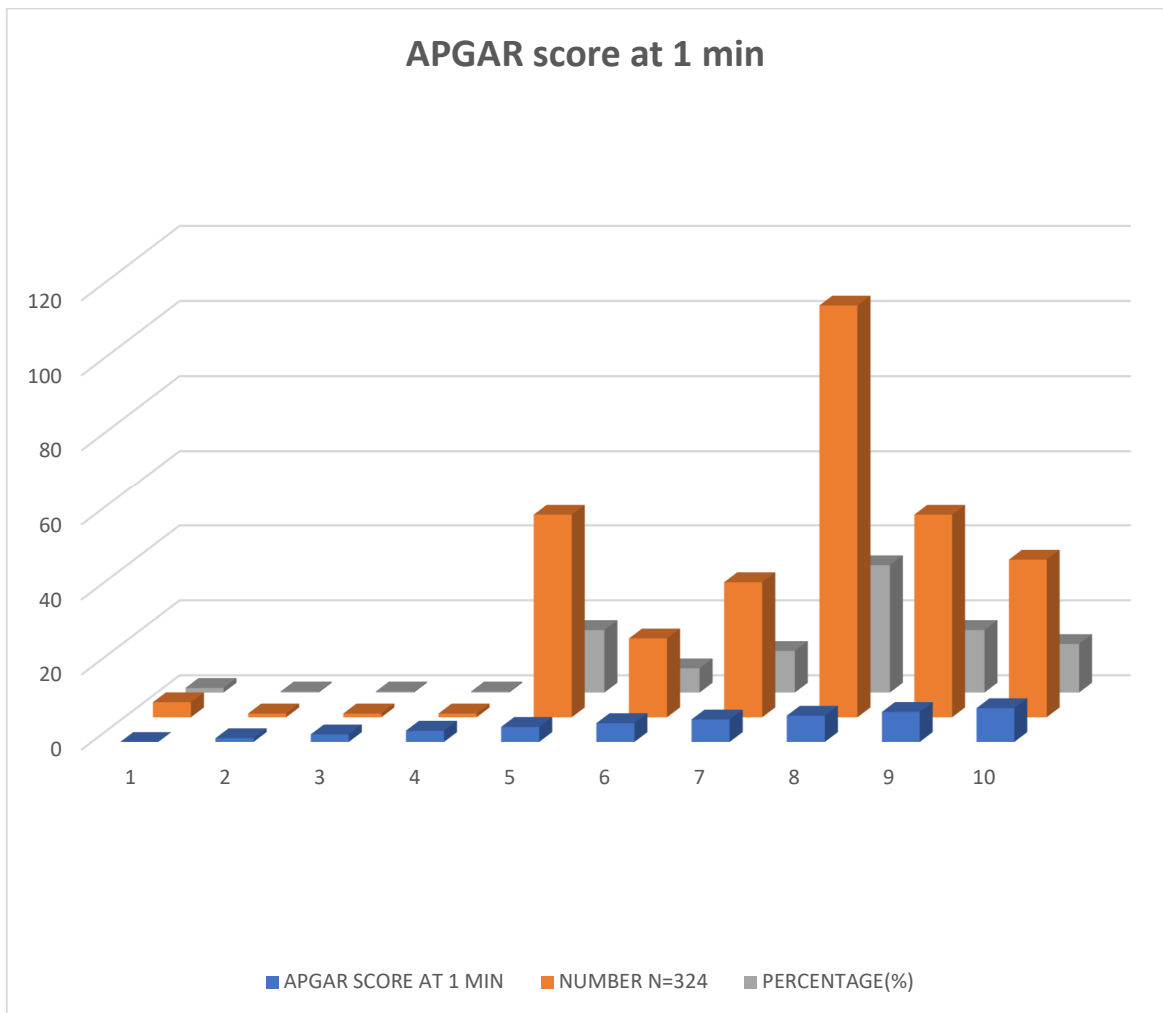


Table 18:APGAR score at 5 min

Apgar score at 5 min	Number n=324	Percentage(%)
0	4	1.20
1	1	0.30
2	6	1.80
3	1	0.30
4	66	20.50
5	34	10.60
6	24	7.50
7	56	17.40
8	102	31.70
9	30	8.7
Total	324	100

In present study mean APGAR score at 5 min is 8.2 ± 0.50 .

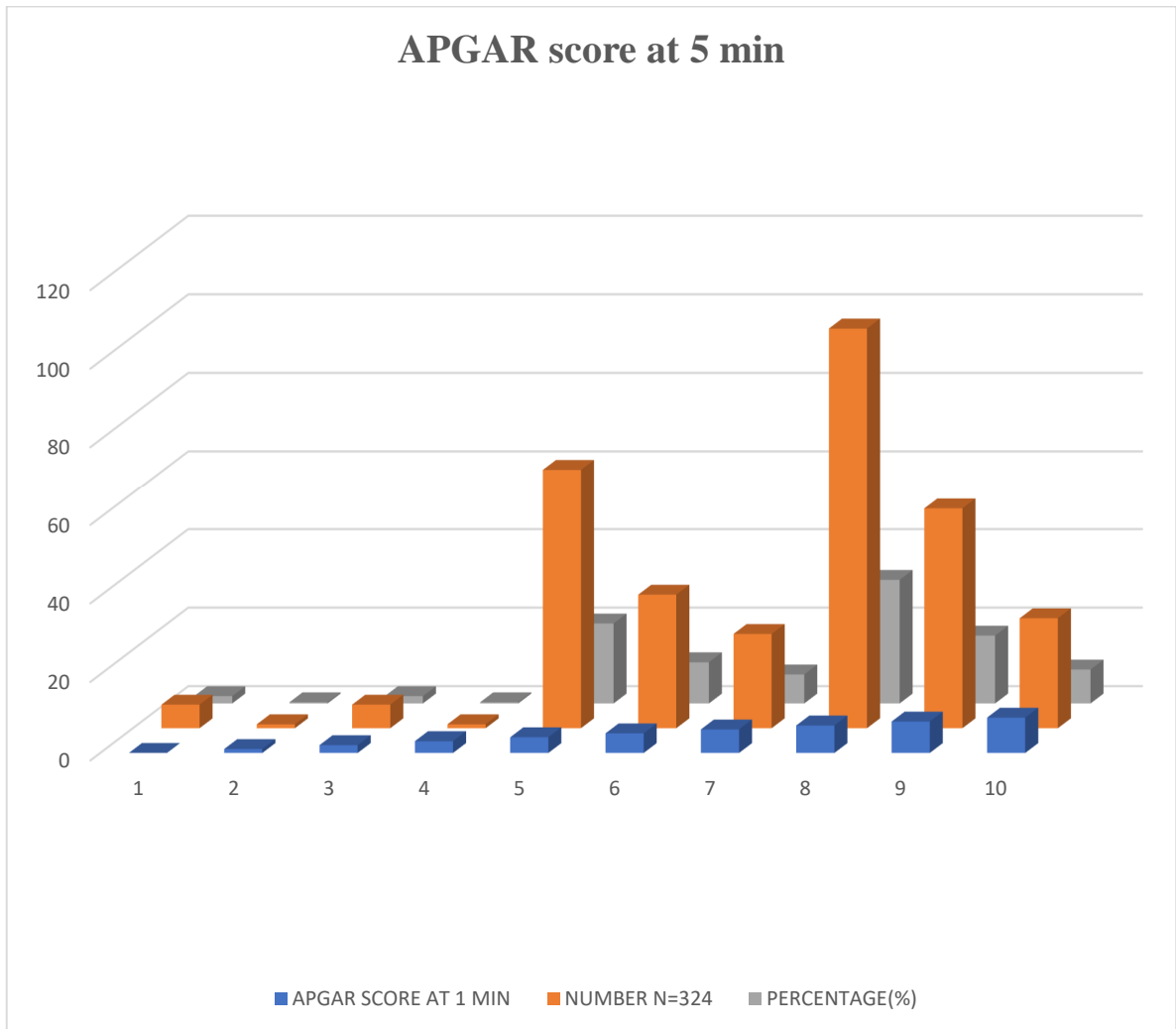


Table19: Indication for NICU admission

Cause of NICU admission	Number n=184	Percentage=57.5 (%)
Low birth weight	45	14.06
Prematurity	40	12.5
Meconium aspiration	32	10
Respiratory distress	14	4.32
Hypoglycaemia	14	4.32
Jaundice	37	11.68
Birth asphyxia	2	0.62
Total	184	57.5

In present study among 300 deliveries 184 babies (57.5%) had NICU admission of which 45 babies (14.06%) low birth weight ,40(12.5%) prematurity ,32 babies (10%) meconium aspiration ,37 babies (11.68%) neonatal jaundice , 14 babies (4.32%) respiratory distress ,14 babies (4.32%) hypoglycaemia, 2 babies (0.62%)birth asphyxia.

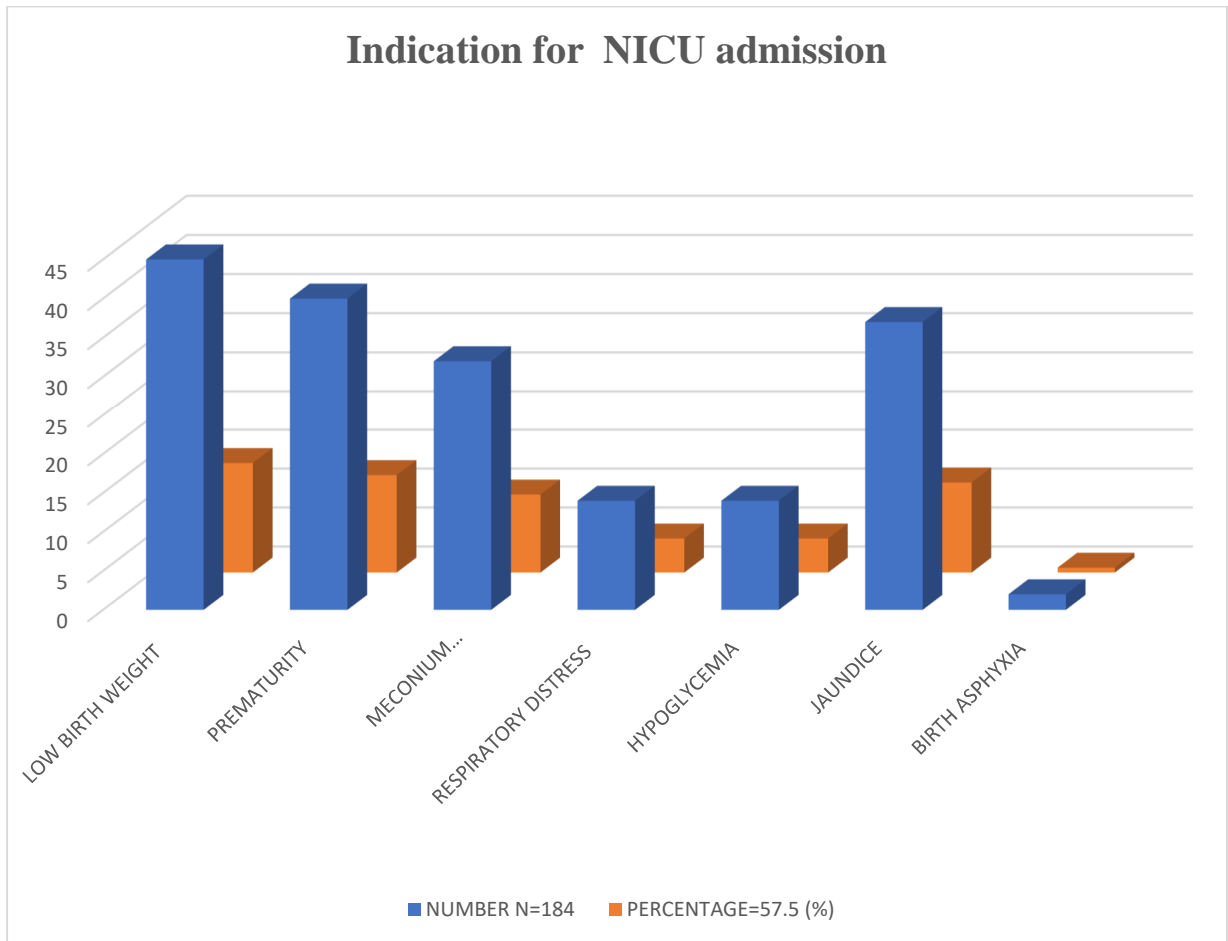
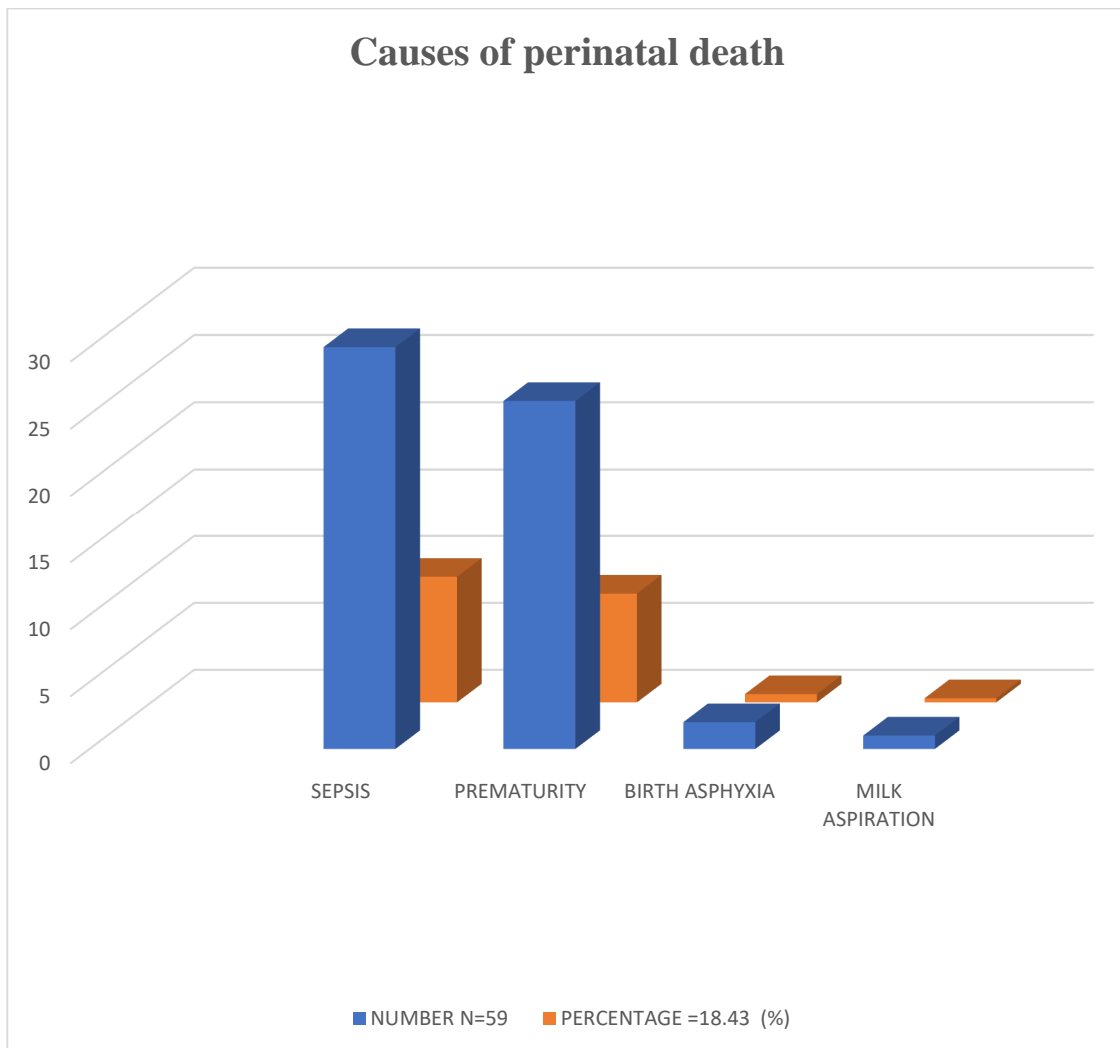


Table 20:Causes of perinatal death

Causes of perinatal death	Number n=59	Percentage =18.43 (%)
Sepsis	30	9.37
Prematurity	26	8.12
Birth asphyxia	2	0.62
Milk aspiration	1	0.32
Total	59	18.43

In present study among 300 deliveries perinatal death is seen in 59 babies (18.68%) of which 30 babies (7.5%) sepsis ,26 babies (6.25%) prematurity , 2 babies (0.62%) birth asphyxia,1 baby (0.31%) milk aspiration.



DISCUSSION

The present cross sectional study was conducted during period of January 2021 to June 2022 in KAHER'S, Dr Prabhakar kore Charitable Hospital and MRC, Belagavi attached to Jawaharlal Nehru Medical College. A total of 300 women fulfilling the inclusion criteria were included in present study - A CROSS SECTIONAL STUDY OF PRIMARY CESAREAN SECTION IN MULTIGRAVIDA AT A TERTIARY HEALTH CENTRE, BELAGAVI.

DEMOGRAPHIC CHARACTERICS

INCIDENCE

According to the table no 1 in the present study, a total of 5181 were delivered from January 2021 to June 2022, of which 3268 underwent cesarean section and 1913 were delivered vaginally. Among the 3268 cesarean sections, 1230 repeated cesarean sections, 1738 were primary cesarean sections in primigravida and 300 were primary cesarean sections in multigravida. The incidence of primary cesarean section in multigravida accounted for 5.79%. The incidence of primary cesarean section among multigravida is 66.7%. The incidence of primary cesarean section in multigravida among multigravida who previously delivered vaginally is 28.27%. The incidence of primary cesarean section among primigravida is 60.1%. The incidence of primary cesarean section in primigravida is 33.54%. In similar study conducted by spoorthy et al⁵ incidence of primary cesarean section in multigravida is 3.007%. In similar another study conducted by Jyothi et al²⁸, the primary caesarean rate in multigravida is 10.28%.

In similar another study conducted by Savita somalwar et al² primary caesarean sections in multigravida is 5.73%. The present study's finding is consistent with other studies.

AGE DISTRIBUTION

Age is an important factor because it is associated with increased adverse maternal and perinatal outcomes. Childbirth at a young (i.e., ≤ 19 years old) or advanced maternal age (i.e., ≥ 35 years old) is associated with an increased risk of adverse maternal and perinatal outcomes such as postpartum haemorrhage, eclampsia and cephalopelvic disproportion as well as adverse neonatal outcome including preterm birth, poor fetal growth, low birth weight and neonatal mortality(78). The mean age of women was 25.6 years. According to the table no 2 in a present study among 300 subjects,158 subjects (52.67%) were between the age group of 26–30 years, 90 subjects (30%) were aged between 21–25 years of age, 35 subjects (11.67%) were aged between 31–35 years of age, 10 subjects (3.33%) were between 36–40 years of age, and 7 subjects (2.33%) were in the 18–20 years of age.

In a similar study done by Spoorthy et al⁵ total number of subjects was 235 among those 111 subjects (47.8%) were between the age group 25-29 years, 55 subjects (23.7%) were between the age group 20-24 years, 38 subjects (16.37%) were between the age group 30-34 years,25 subjects (10.77%) were between the age group 35 to 39 years and only one subject(0.42%) was more than 40 years of age.

In a similar, study conducted by Savita Somalwar et al² among 200 subjects 105 subjects (52.5%) were in the age group 25-29 years, 41 subjects (20.5%) were less than 25 years and 54 subjects(27%) were more than 30 years.

In a similar, study conducted by Hangarga et al²⁹ the total number of subjects enrolled was 84 and 31% of subjects were in the age group 25–27 years, 34% of subjects were in the age group 22–24 years, 14% of subjects were in the age group 19–21 years and 7% were in the age group 28–31 years. The present study's finding is consistent with other studies.

SOCIO ECONOMIC STATUS DISTRIBUTION

According to the modified B.G. Prasad classification in table no 3 among 300 subjects, 88 subjects (29.33%) belonged to class 1 (upper class), 78 subjects (26%) belonged to class 2 (upper middle), 52 subjects (17.33%) belonged to class 3 (middle class), 15 subjects (5%) belonged to class 4 (lower middle class), 67 subjects (22.33%) belonged to class 5 (lower class).

In a similar study conducted by Janani et al³⁶, the majority of patients belonged to class 4 socioeconomic status.

We can correlate in the present study that the majority of primary cesarean sections were observed in the upper class and lower class combined accounting for 155 (51.66%) among 300 delivery even though the upper class has better education, insurance policy, and regular antenatal check-up. The reason is a lack of willingness to accept even a minor increased associated risks with medical and sociolegal expectations of perfect neonatal outcomes and operative vaginal delivery. In the lower class, there is a lack in availability of resources like nutrition, regular antenatal check-ups, formal education leading to malnutrition, anemia, cephalopelvic disproportion, FGR, eclampsia, oligohydramnios, post datism leading to higher primary cesarean section rate. The present study's findings are consistent with other studies.

REGISTERED CASE

According to table no 4, in the present study among 300 subjects 162 subjects (54%) were unregistered and 138 subjects (46%) were registered. Registered antenatal case means a minimum of 4 antenatal visits.

In a similar study conducted by Spoorthy et al⁵ among 235 subjects 168 (72.8%) were the unregistered case. In a similar study done by Savita Somalwar et al², among 152 subjects 110 (72.36%) were unregistered.

The lack of regular antenatal visits by the multiparous women contributed to complications such as anaemia, pregnancy-induced hypertension, fetal growth restriction, oligohydramnios, post datism, haemorrhage, cephalopelvic disproportion leading to higher primary cesarean section rate. The present study's finding is consistent with other studies.

RISK WISE DISTRIBUTION

According to table no 5, in the present study among 300 subjects 232(77.33%) women were in the high-risk category. High-risk factors such as 98 subjects (32.66%) were anaemic, 40 subjects (13.33%) PIH, 38 subjects (12.6.7%) breech, 12 subjects (4 %) GDM, 24 subjects (8%) twin gestation, 10 subjects (3.33%) precocious pregnancy, 10 subjects (3.33%) early onset FGR.

Our hospital is a tertiary care setup and referral hospital to the surrounding district, availability of NICU care and a blood bank is the reason for a large number of high-risk cases.

GRAVIDA DISTRIBUTION

According to the table no 6 in present study 300 subjects 204 subjects (68%) had 1 prior vaginal delivery, 80 subjects (26.67%) had 2 prior vaginal delivery, 14 subjects (4.66%) had 3 prior vaginal delivery, and 2 subjects (0.66%) had 4 prior vaginal delivery.

In a similar study conducted by Spoorthy et al⁵ among 235 subjects 149 subjects (64.22%) were para 2 and 69 subjects (29.74%) were para 3 and 5 subjects (1.72%) were para 4. In a similar study conducted by Hangarga et al a total of 84 subjects were enrolled of which 37 subjects (44%) were para 1, 20 subjects (23%) were para 2, 21 subjects (25%) were para 3 and 6 subjects (7%) were para 4.

We can correlate in the present study that the majority of primary cesarean sections were seen in para 1 and para 2 284 subjects (94.67%). This is because in present times concept of the nuclear family and knowledge of contraception as restricted to grand multigravida in our study. we should be more cautious in para 1 and 2 women to reduce primary cesarean section rates. The present study's finding is consistent with other studies.

PERIOD OF GESTATION

According to table no 7 in the present study among 300 subjects 160 subjects (53.33%) were between 37 weeks to 39 weeks +6 days POG, 69 subjects (23%) were between 37 weeks to 39 weeks days +6 POG, 53 subjects (17.67%) were between 40 weeks to 41weeks +6 days POG, 8 subjects (2.67%) were between 28 weeks to 31 weeks +6 days POG, 7 subjects (2.33%) were between 32 weeks to 33 weeks +6 days POG and 3 subjects (1%) more than 42 weeks POG.

In a similar study conducted by Janani et al³⁶ a total of 600 subjects were enrolled of which 455 subjects (75.8%) were between 37 to 40 weeks POG, 79 subjects (13.2%) were between 34 to 36 weeks POG and 66 subjects (11%) were less than 34 weeks POG. The present study's finding is consistent with other studies.

TYPE OF PRIMARY CESAREAN SECTION

According to table, no 8 in the present study among 300 subjects 185 subjects (61.66%) underwent full-term emergency cesarean section, 64 subjects (21.33%) underwent preterm emergency cesarean section, 27 subjects (9%) underwent full-term elective cesarean section and 24 subjects (8%) underwent preterm elective cesarean section.

in a similar study conducted by spoorthy et al⁵ among 235 subjects 222 subjects (94.46%) underwent emergency cesarean section and 13(5.54%) subjects underwent elective cesarean section.

In similar another study conducted by Jyothi et al²⁸, a total of 200 subjects were enrolled of which 192 subjects(96%) underwent emergency caesarean section.

In similar, another study done by Savita somalwar et al² a total of 200 subjects were enrolled of which 193 subjects (96.5%) underwent emergency cesarean section and 7 subjects (3.5%) underwent elective cesarean section. The present study's finding is consistent with other studies

STAGE OF LABOR

According to table no 8 in the present study among 300 subjects primary cesarean sections were done in 51 subjects (17%) before the onset of labor, 245 subjects (81.66%) in the first stage of labor and 4 subjects (1.33%) in the second stage of labor.

In a similar study conducted by Hariprasad et al³⁷ among 200 subjects 156(78%) patients were in labour and 44(22%) were not in labour. The present study's finding is consistent with other studies

INDICATIONS

According to table no 9 in present study among 300 subjects indication of primary cesarean section is 67 (22.33%) fetal distress, 42(14%) malpresentation of which 38(12.67%) breech presentation, 2(0.67%) brow presentation and 2(0.66%) face presentation, 30(10%) thick meconium stained liquor with non-reassuring NST, 27(9%) severe pre-eclampsia and eclampsia group of which 19(6.33%) were severe PE and eclampsia, 6(2%) were imminent 2(0.66%) were eclampsia were seen, 24 (8%) twin gestation of which 4 (1.33%) were MCMA, 10(3.33%) were MCDA with twin A

breech and 10 (3.33%) DCDA twin with twin A breech, 23(7.67%) FGR with doppler changes of which 19(6.33%) had absent end diastolic flow and 4(1.67%) had reversal end diastolic flow , 16(5.33%) oligamnios, 16(5.3%) antepartum haemorrhage of which 9 were placenta previa with PV bleeding and 7 revealed abruptio placenta ,14(4.67%) CDMR,10(3.33%) cephalopelvic disproportion, 10(3.33%) precious pregnancy of which 5 were conceived by ovulation induction ,4 had an history of more than 10 years of married life and 1 had conceived by IVF , 9(3%)placenta previa with no bleeding ,6(2%) bad obstetrics history,3(1%)deep transverse arrest, 3(1%) failed induction,1(0.33%) cervical dystocia,1(0.33%) obstructed labor and 7(2.33%)other indication of which 2(0.66%) cardiac cases in which one was pulmonary artery hypertension and one was RHD with severe MS and 5(1.67%) cases of cord presentation.

In a similar study conducted by spoorthy et al⁵ among 235 subjects primary cesarean section was done in 114(49.13%) with fetal distress, 36(15.52%), malpresentation, 26(15.52%) failure to progress due to minor degree CPD,24(10.3%) placenta previa,8(3.4%) abruptio placenta, 8(3.4%)failed induction, 6(2.5%) failed induction, 6(2.5%) cord presentation, 5(2.1%) antepartum eclampsia with an unfavourable cervix, 5(2.1%) twin gestation, 2(0.86%) cord prolapse.

In a similar, study conducted by Savita somalwar et al² among 200 subjects, primary cesarean section was done in 94(47%) fetal distress, 26(13%) malpresentation, 26(13%) thick meconium-stained liquor 11(5.5%) cervical dystocia,10(5%) APH, 10(5%) maternal desire, 7(3.5%) failed induction, 4(2%) MCDA with twin A breech, 2(1%) DTA, 2(1%) abnormal doppler.

In similar another study conducted by Hangarga et al²⁹ a total of 87 subjects were enrolled of which primary cesarean section was done in 19 (22%) with severe

oligohydramnios,13 (15.4%) foetal distress,12 (14%)breech presentation,10 (11.49%) PROM, 7 (8.3%) APH, 5 (6%) CPD, 6 (7%) multiple pregnancies, 4 (4.7%) severe PE, 3 (3.5%) obstructed labour. The present study's finding is consistent with other studies.

INTRA OPERATIVE FINDINGS

According to table no 10 in the present study among 300 subjects 208(69.33%)subjects had significant intraoperative findings of which 62 subjects (20.66%) had thick MSL, 42 subjects (14%) had cord around the neck, 32 subjects (10.67%) thinned out the lower segment, 30 subjects (10%) extension of uterine incision, 12 subjects (4%) placenta previa, 5 subjects (1.67%) retroplacental clot, 4 subjects (1.33%) blood stained liquor, 3 subjects (1%) couvelaires uterus, 9 subjects (3%) fibroid, 4 subjects (1.33%) PPH,4 subjects (1.33%) ovarian cyst.

In similar study conducted by Satish et al³⁸ among 90 subjects 43 subjects (47.7%)of subjects had no significant intraoperative findings and the remaining 20 subjects (22.2%) had cord around the neck,13 subjects (14.4%) had MSL,10 subjects (11.1%) had PPH,4 subjects (4.4%) had angle extension.

In a similar, another conducted by Girija et al³⁹ among 160 subjects 112(70%) subjects had significant intraoperative findings and complications of which 46 subjects (28.8%) had meconium-stained liquor, 16 subjects (10%) had PPH, 10 subjects (28.8%) had placenta previa, 7 subjects (4.4%) had thinned out the segment, 7 subjects (4.4%) had scanty liquor,5 subjects (3.1%) had bladder wall edema, 3 subjects (1.9%) had retroplacental clots, 3 subjects (1.9%) had ascites, 3 subjects (1.9%) had excess liquor, 2 subjects (1.3%) had bandl's ring, 2 subjects (1.3%) had a uterine anomaly , 1 subjects (0.6%) had couvelaire uterus. The present study's finding is consistent with other studies

EXTENDED OPERATIVE PROCEDURE

According to the table no 12 in the present study among 300 subjects 50 subjects (16.67%) underwent the extended operative procedure of which 30 subjects (10%) repaired of extension, 10 subjects (3.33%) uterine artery ligation, 6 subjects (2%) Haymans suturing, 2 subjects (0.66%) B/L internal artery ligation, 1 subjects underwent (0.66%) bladder repair and peripartum hysterectomy. There are no studies where extended operative procedure of primary cesarean section in multigravida is analysed.

POST OPERATIVE COMPLICATION

According to the table no 13 in the present study among 300 subjects 87(29%) had postoperative complications 21 subjects (7 %) wound gape, 16 subjects (5.33%) had fever, 16 subjects (5.33%) post spinal headache, 12 subjects (4%) abdominal distension, 13 subjects (8%) URTI,6 subjects (2%) fever and 3 subjects (1%) paralytic ileus.

In a similar study conducted by Savita et al² among 200 subjects, 33 subjects (16.5%) had the post-operative complication of which 12 subjects (6%) had a fever, 10 subjects (5%) wound discharge, 6 subjects (3%) PPH, 4 subjects (2%) UTI and 1 subjects (0.5%) fever with wound discharge.

In similar, in another study conducted by Satish Kumar et al³⁸ among 90 subjects 14 subjects (15.5%) had the post-operative complication of which 3 subjects (3.33%) had a fever, 3 subjects (3.33%) had atonic PPH, 3 subjects (3.33%) wound discharge, 2 subjects (3.33%) UTI.

In similar, in another study conducted by Girija et al³⁹ among 160 subjects 31 subjects (19.4%) had the post-operative complication of which 12 subjects (7.5%) had UTI, 10 subjects (6.3%) had pyrexia,4 subjects (6.3%) paralytic ileus, 3 subjects

(1.9%) wound infection, 2 subjects (1.3%) respiratory tract infection. However in contrast to the current study similar finding is not seen because the majority of subjects belonged to lower socioeconomic status due to which lack of availability of resources like nutrition, regular antenatal check-ups, and formal education leading to malnutrition, and anemia leading to higher post-operative complication.

NEED FOR BLOOD AND BLOOD PRODUCTS

According to table no 14 in the present study among 300 subjects 34 subjects (11.33%) required transfusion of blood and blood products of which 28 pints of PRBC, 31 pints of RDP, 2 pints of SDP and 23 pints of FFP were used. The majority of patients were anaemic, the requirement of blood became necessary, especially in cases of antepartum haemorrhage and post-partum haemorrhage.

In a similar study conducted by Sherin et al⁴⁰ among 211 subjects 8 subjects (3.79%) required blood transfusions.

In similar another study conducted by Hariprasad et al³⁷ among 150 subjects 33 subjects (22%) out of 150 cases required blood transfusion either before or after the surgery. The present study's finding is consistent with other studies.

CONDITION OF BABY

According to table, no 15 in the present study there were 320 (98.76%) live birth, 3 (0.93%) fresh stillbirths due to abruption placenta and 1 (0.31%) macerated stillbirth due to anamios

In a similar study conducted by Hariprasad et al³⁷ among 150 deliveries 147(95.45%) live birth, and 7(4.55%) stillbirths.

In a similar study conducted by Jyothi et al²⁸ among 200 deliveries of which 186(93%) live birth and 14(7%) stillbirths were seen.

In similar another study conducted by Girija et al³⁹ studies among 160 deliveries of which 158 live birth (98.8%) and 2 stillbirths (1.2%) were seen. %. The present study's finding is consistent with other studies.

BIRTH WEIGHT DISTRIBUTION

According to table no 16 in the present study among 300 deliveries in order of frequency 86 babies (26.55%) were between 2.6 -3.0 kg, 83 babies (25.60%) were between 3.1-3.5 kg, 63 babies (19.45%) were between 2.1-2.5 kg, 37 babies (11.42%) were between 1.6-2.0kg, 24 babies (7.40%) were between 3.6 kg-4 kg, 24 babies (7.40%) were between 1.1-1.5 kg, 6 babies (1.88%) were between 0.7-1.0 kg and 1 baby (0.30%) more than 4.1 kg. Around 67(20.93%) babies were less than 2 kg because Our hospital is a tertiary care setup and referral hospital to the surrounding district, availability of NICU care and the blood bank is the reason for a large number of babies less than 2 kg.

In a similar study conducted by Savita et al² among 200 deliveries of which 133(64.9%) babies were in 2.1-3.0 kg,47(22.91%) babies were more than 3.1 kg, and 25(12.19% babies were)less than 2 kg.

In similar another study conducted by hangarga et al²⁹ among 87 deliveries babies were maximum in 2.6 - 3 kg 30 babies(35%) followed by 2.1 – 2.5 kg babies (29%), 1.6 – 2 11 babies (13%), 3.1- 3.5 10 babies (12 %), 3.6 and above 5 babies (6%) and less than 1.5 kg 3 babies (3.5%). The present study's finding is consistent with other studies.

APGAR SCORE AT 1 MIN AND 5 MINS

According to the table, no 17 and 18 in the present study among 300 deliveries mean APGAR score @ 1 min was 7.17 ± 0.56 and APGAR score @ 5 min was 8.2 ± 0.50 .

In a similar study conducted by Satish Kumar et al³⁸ among 90 deliveries of which 82(91%) of the babies had an APGAR score of 7 or more at 5 minutes and 8(9%) of the babies had an APGAR score of less than 7.

In similar another study conducted by Savita et al² among 200 deliveries 186 babies (93%) had an APGAR score of more than 7, and 14 babies (6.8%) had an APGAR score of less than 7. %). The present study's finding is consistent with other studies.

NICU ADMISSION

According to table, no 19 in the present study among 300 deliveries 184 babies (57.5%) had NICU admission of which 45 babies (14.06%) had low birth weight,40(12.5%) prematurity,32 babies (10%) had meconium aspiration,37 babies (11.68%) neonatal jaundice, 14 babies (4.32%) respiratory distress,14 babies (4.32%) hypoglycaemia, 2 babies (0.62%)birth asphyxia.

In a similar study conducted by Savita et al² study among 200 deliveries 70 babies (34.14%)were admitted to the NICU, of which 62 babies (31%)had newborn morbidity and 8(4%)experienced neonatal death.

In similar another study conducted by Satish et al³⁸ among 90 deliveries 18 babies (20%) were admitted to NICU of which 8 babies (44.4%) had preterm care, 3 babies(16.7%) had respiratory distress, 2 babies(11.1%) birth asphyxia, which 5 babies (27.8%) had meconium aspiration syndrome. However in contrast to the current study similar finding is not seen because high-risk cases like eclampsia, early onset FGR with doppler changes, overt DM with uncontrolled sugar, and severe oligohydramnios are referred since our hospital is tertiary care setup and referral hospital to the surrounding district, availability of NICU care and blood bank.

CAUSES OF PERINATAL DEATH

According to the table no 20 in the present study among 300 deliveries perinatal death is seen in 59 babies (18.68%) of which 30 babies (7.5%) have sepsis, 26 babies (6.25%) prematurity, 2 babies (0.62%) birth asphyxia, 1 baby (0.31%) milk aspiration.

In a similar study conducted by Savita et al² study among 200 deliveries, Neonatal mortality affected 79 babies (39.5%), of which 35 babies (17.07%) died due to preterm care, 22 babies (10.73%) from respiratory distress, 6 babies (2.93%) from meconium aspiration syndrome, 4 babies (1.95%) from hypoglycaemia, 2 babies (0.98%) a from sepsis, 5 babies (2.44%) from extremely low birth weight, and 3 babies (1.46%) from birth asphyxia. The perinatal mortality rate is comparatively less in the current study when compared to other studies, proving the factor that prompts treatment to the mother and timely delivery of the baby and proper NICU care in the current setup.

The strengths of the study are that it is a cross-sectional study and all details regarding the primary cesarean section of the study population are studied.

The major limitation of the current study is that it's a one-year study which has been conducted only in a single tertiary care centre and small sample size.

To conclude “the art of surgery may be necessary to perform difficult cesarean section but to decide whether this is necessary and to choose the ideal moment to deliver the baby is surely the art of obstetrics”⁴¹

CONCLUSION

Our study has shown that multigravida is associated with high primary cesarean section rate, maternal complication and neonatal complication , although multigravida is considered as a low-risk group leading to a false sense of security.

Our study has shown that multigravida is associated with unfavorable maternal and fetal outcome, Hence same as high risk pregnancies multigravida should also receive adequate obstetrics care .

SUMMARY

In the present study, following are the significant finding:-

- Incidence of primary cesarean section in multigravida was 5.79%.
- Maximum number of cesarean section were done in age group of 26-30 years.
Mean age of women was 25.6 years .
- Maximum number of study women belonged to class 1 88(29.33%), class 2 78(26%) and class 5 67(22.33%) of modified B.G prasad classification.
- Maximum number of women were unregistered 162(54%).
- 232(77.33%) women were in high risk category.
- Maximum number of women 204(68%) had 1 prior vaginal delivery.
- Most number of primary cesarean section were done between 37 to 39⁺⁶
- Maximum number of cesarean section done were full term emergency cesarean section 185(61.66%).
- Most number of women underwent primary cesarean section in first stage 245(81.66%).
- The most common indication were fetal distress 67(22.33%), malpresentation 42(14%) ,thick meconium stained liquor with non-reassuring CTG 30(10%),severe pre-eclampsia and eclampsia 27(9%).
- The most common intraoperative finding were thick MSL 62(20.66%) and extension of incision 30(10%).
- The most common extended procedure performed was repair of uterine extensions 30(10%).
- The most common post operative complication were wound gape 21(7%).
- Blood transfusion was needed in 34 (11.33%) women.

- There were 320 (98.76%) live birth, 3 (0.93%) fresh still birth and 1 (0.31%) macerated still birth.
- Maximum babies were between 2.6-3.0 kg group 86 (26.54%).
- Mean APGAR score at 1 min is 7.17 ± 0.56 and mean APGAR score at 5 min is 8.2 ± 0.50 .
- NICU admission were given to 184(57.5%) neonates. 45 (14.06%) low birth weight ,40(12.5%) prematurity was the most common causes
- Perinatal death were seen in 59(18.43%) .Sepsis 30(9.37%) and prematurity 26(8.12%) were most common cause for perinatal death.

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WAIVER OF CONSENT



K.L.E. ACADEMY OF HIGHER EDUCATION AND RESEARCH
(Deemed - to- be- University)

Accredited 'A' Grade by NAAC (2nd Cycle)

Placed in Category 'A' by MHRD (GoI)

**JAWAHARLAL NEHRU MEDICAL COLLEGE,
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Ref: MDC/DOME/290

Date: 22/12/2021

To,

REG. NO. BJ0120010

P G Student in Obstetrics & Gynaecology,
J. N. Medical College,
BELAGAVI.

With reference to the above, we wish to inform you that your proposed research project titled

**"A CROSS SECTIONAL STUDY OF PRIMARY CESAREAN
SECTION IN MULTIGRAVIDA AT A TERTIARY HEALTH
CENTRE, BELAGAVI"**

records and the study does not involve any interaction with cases and no identifiable information will be collected. The waiver of consent has been approved for the proposed research project and has been cleared by the JNMC Institutional Ethics Committee on Human Subjects Research.

(Dr. Smita Sonoli)
Member Secretary
JNMC Institutional Ethics Committee
on Human Subjects Research,
J.N.Medical College, Belagavi.

(Dr. Harsha Hegde)
Chairman,
JNMC Institutional Ethics Committee
on Human Subjects Research,
J.N.Medical College, Belagavi

3)CHEST PAIN

4)SHORTNESS OF BREATH

5)HIGH BLOOD PRESURE

e)ANY OTHER MATERNAL HEALTH PROBELMS: YES/NO

f)REDUCED FETAL MOVEMENTS: YES/NO

OBSTETRIC HISTORY:

MARRIED LIFE : CONSANGUINEOUS/ NON-CONSANGUINEOUS

PREVIOUS PREGNANCY DETAILS

PRESENT PREGNANCY DETAILS :

TIME OF DIAGNOSIS

INFERTILITY TREATMENT

MODE OF CONCEPTION

NUMBER AND LENGTH OF HOSPITALISATION

PRENATAL CARE ULITIZATION :ADEQUATE /INADEQUATE

OBSTETRICS SCORE: **G** **P** **L** **A**

LMP (DD/MM/YY):

EDD:

C. EDD:

PERIOD OF GESTATION(WEEKS+DAYS)

HISTORY OF HYPERTENSION Y N

HISTORY OF DIABETICS MELLITUS Y N

HISTORY OF PRE-EXISTING RENAL /CARDIAC DISORDERS Y N

HISTORY OF THYROID ABNORMALITY Y N

HISTORY OF ALOCHOL CONSUMPTION Y N

HISTORY OF ABRUPTIO PLACENTA Y N

GENERAL PHYSICAL EXAMINATION

HEIGHT:

WEIGHT:

BMI:

VITALS:

PULSE:

BLOOD PRESURE:

TEMPERATURE:

RESPIRATORY RATE:

PALLOR

ICTERUS

EDEMA

BREAST

THYROID

SPINE

SYSTEMIC EXAMINATION:

RESPIRATORY SYSTEM:

CARDIOVASCULAR EXAMINATION:

PER ABDOMEN:

UTERUS SIZE

PRESENTATION

FHR

PER SPECULAM:

PER VAGINA:

DETAILS OF DELIVERY:

INDICATION FOR CESAREAN SECTION

FETAL DISTRESS

CEPHALOPELVIC DISPROPORTION

BREECH:

PLACENTA PREVIA

FAILED PROGRESS

SEVERE PIH

OBSTRUCTED LABOR

OLIGOHYDRAMINOS

IUGR

FAILED INDUCTION

MECONIUM STAINED IN

THE FIRST STAGE OF LABOR

ANTEPARTUM ECLAMPSIA

PROM

ABRUPTIO PLACENTA

UTEROPLACENTAL INSUFFICIENCY	<input type="text"/>
PRECIOUS PREGNANCY	<input type="text"/>
DEEP TRANVERSE ARREST	<input type="text"/>
TRANVERSE LIE	<input type="text"/>
BROW PRESENTATION	<input type="text"/>
CORD PROLAPSE	<input type="text"/>
FACE PRESENTATION	<input type="text"/>
SEVERE ECLAMPSIA	<input type="text"/>
MULTIPLE GESTATION	<input type="text"/>
VASA PREVIA	<input type="text"/>
IMPENDING RUPTURE	<input type="text"/>
MEDICAL CONDITION	<input type="text"/>
ANY OTHER,SPECIFY:	<input type="text"/>
OUT COME OF PREGNANCY	<input type="text"/>
CONDITION OF MOTHER:	<input type="text"/>

LIVE BIRTH

FRESH STILL BIRTH

MACERATED STILL BIRTH

BABY WEIGHT AT BIRTH:

BABY GENDER :MALE/FEMALE

DID THE BABY HAVE ANY CONGENTIAL ANOMALY:

IF YES SPECIFY

DID THE BABY HAVE BIRTH INJURY:

IF YES SPECIFY

WAS THE BABY ADMITTED TO NICU FOR COMPLICATION:

IF YES CAUSE OF ADMISSION

INFECTION/SEPSIS:

BREATHING DIFFICULTIES:

ASPHYRIA:

RESPIRATORY DISTRESS:

JAUNDICE :

CONVULSION:

CONDITION OF BABY AT DISCHARGE:

IF BABY DIED ,CAUSE OF DEATH:

PREMATURITY:

LOW BIRTH WEIGHT:

SEPSIS:

BIRTH ASPHYXIA

SIGNATURE AND NAME OF INVESTIGATOR

IP NO	AGE	EDUCATION	OCCUPATION	SOCIOECONOMICS STATUS	ANC VISIT	DURATION OF STAY	REASON FOR SEEKING CARE	MARRIED LIFE	CONSAQUINITY	RISK FACTOR	OBSTETRICS SCORE	PREVIOUS BABY WEIGHT	POG	ELE VS EMER	STAGE OF LABOR	INDICATION	INTRA OPERATIVE COMPLICATION	BLOOD LOSS	CONCURRENT TUBECTOMY	BLOOD TRANSFUSION	POST OPERATIVE COMPLICATION	CONDITION OF BABY	BIRTH WEIGHT	BABY GENDER	ANY ANOMALY	ANY BIRTH INJURY	NCU ADMISSION	CONDITION OF BABY AT DISCHARGE	REASON FOR BABY DEATH			
1033402	24	5	6	2	REG	5	1	2	2	ANEMIA	G2P1L1	3.5	38.6	PT EMER	FIRST STAGE	PATHOLOGICAL TRACE		600	NO	2 PINT PCV	POST SPINAL HEADACHE	1	3.2	1	0	0	0	1	-			
1033408	24	5	6	1	REG	4	1	3	2	ANEMIA	G2P1L1	3	40	FT EMER	FIRST STAGE	PATHOLOGICAL TRACE	2 TIGHT LOOP OF CORD	410	NO	-	-	1	2.7	1	0	0	0	1	-			
1033719	24	7	6	2	REG	3	7	3	2	MCDA,FGR WITH NORMAL DOPPLER	G4P3L3	2.5,2.5	36.5	PT ELEC	PRE LABOR	MCDA WITH TWIN A BREECH		330	YES	-	-	1	2.1,2.1	1	1	0	0	0	-			
1033705	30	5	6	1	UNREG	6	5	4	2	GDM,MACROSOMIA	G3P2L2	3.3	36.1	PT ELEC	PRE LABOR	NPL WITH SUSPICIOUS TRACE		310	NO	-	-	1	3	1	0	0	0	0	0			
103406	32	4	6	1	UNREG	4	7	3	2	SEVERE PE,HYPOTHYROIDISM	G2P1L1	3	40	FT EMER	FIRST STAGE	MSL		250	NO	-	-	1	3.1	2	0	0	0	1	0			
103457	25	4	6	1	REG	1	1	2	2	-	G2P1L1	2.5	39.1	FT EMER	FIRST STAGE	MSL		360	NO	-	-	1	2.3	2	0	0	0	1	0			
1034259	30	5	6	3	REG	3	5	4	2	GDM,MACROSOMIA,POLYHYDRAMINOS	G2P1L1	2.7	36.2	PT ELEC	PRE LABOR	GDM	UTERINE ATONY	700	NO	-	-	1	3.8	2	0	0	0	0	1	0		
1036070	25	2	6	1	REG	2	1	6	2	-	G4P2L1A1	2.5,2.5	39.2	PT EMER	FIRST STAGE	SECONDARY ARREST OF CERVICAL DILATATION		440	NO	-	-	1	2.8	2	0	0	0	0	1	0		
1036068	37	7	5	3	UNREG	6	7	14	2	HYPOTHYROIDISM	G4P2L1A1	2.7,UNKNOWN	35.1	PT ELEC	PRE LABOR	MACROSOMIA		490	YES	-	-	1	3.1	2	0	0	0	0	1	0		
1036220	25	5	6	1	UNREG	4	1	2	2	-	G3P2L1	2.5,2	39.6	FT EMER	FIRST STAGE	IUGR WITH SUSPICIOUS TRACE	2 TIGHT LOOP OF CORD	300	NO	-	-	1	2.5	1	0	0	0	1	0			
1037017	25	5	6	1	REG	2	1	3	2	DCDA	G2P1L1	3.2	36.6	PT EMER	FIRST STAGE	DCDA WITH TWIN A BREECH	PPH,Hayman suturing	1100	NO	-	-	1	2.1,8	2	0	0	0	1	0			
1037057	29	5	6	2	REG	2	7	2	2	POST DATISM,POLYHYDRAMINOS,HYPOTHYR OIDISM	G2P1L1	3	40.1	FT EMER	FIRST STAGE	FETAL DISTRESS	EXTENSION/U/L UTERINE ARTERY LIGATION	440	NO	-	-	1	3.2	1	0	0	0	1	0			
1037366	36	3	6	1	REG	6	7	16	2	GDM	G4P2L2A1	2.5	37.6	FT EMER	FIRST STAGE	FETAL DISTRESS	1 TIGHT LOOP OF CORD	390	NO	-	-	1	3	1	0	0	0	0	1	0		
1037637	32	7	3	3	REG	2	7	3	2	HYPOTHYROIDISM	G3P1L1A1	3.7	39	FT ELEC	PRE LABOR	CDMR		400	YES	-	-	1	3.1	1	0	0	0	0	1	0		
1038329	22	5	6	1	UNREG	2	3	2	2	-	G2P1L1	3	37.2	FT EMER	FIRST STAGE	MSL		380	NO	-	-	1	2.3	1	0	0	0	0	1	0		
1038085	24	7	6	1	REG	6	7	2	2	OLIGO	G2P1L1	3	36.2	PT EMER	PRE LABOR	FETAL DISTRESS	EXTENSION/U/L UTERINE ARTERY LIGATION ATONY	550	NO	-	-	1	2.5	1	0	0	0	1	0			
1039082	32	8	5	3	REG	1	3	3	2	-	G2P1L1	3	37.5	FT EMER	PRE LABOR	OLIGO		400	NO	-	-	1	3.5	2	0	0	0	0	1	0		
1039188	24	5	6	2	REG	1	1	2	2	-	G2P1L1	3.4	40.4	FT EMER	FIRST STAGE	NON REACTIVE NST	MSL,EXTENSION/U/L UTER LIGATION	370	NO	-	-	1	3.3	1	0	0	0	0	1	0		
1039450	25	5	6	2	REG	3	2	2	2	-	G2P1L1	2.6	38.4	FT EMER	FIRST STAGE	MSL	U/L UTERINE LIGATION	560	NO	-	-	1	2.8	1	0	0	0	0	1	0		
1039518	26	5	6	2	UNREG	3	2	2	2	-	G3P1L1A1	2.3	39	FT EMER	FIRST STAGE	MSL		330	NO	-	-	1	2.6	2	0	0	0	0	1	0		
1039476	25	5	6	2	REG	2	7	1	2	PRECIOUS PREGNANCY	G3P1L1A1	3.3	40	FT EMER	PRE LABOR	PERSISTENT FETAL TACYCARDIA		330	NO	-	-	1	3.3	1	0	0	0	0	1	0		
1039742	30	5	6	1	REG	1	4	4	2	GDM,MACROSOMIA	G4P2L2A1	3	35.3	PT EMER	FIRST STAGE	CORD PRESENTATION	UTERINE ATONY	490	NO	-	-	1	2.8	2	0	0	0	0	1	0		
1039567	29	8	5	1	REG	1	7	4	2	-	G2P1L1	2.5,2.6	40.1	FT EMER	FIRST STAGE	FAILED INDUCTION	2 TIGHT LOOP OF CORD,EXTENSION,UTERINE ATONY	490	NO	-	-	1	3.25	1	0	0	0	0	1	0		
1039713	27	5	6	1	REG	1	3	3	2	-	G3P2L2	2.5,2.3	39.1	FT EMER	FIRST STAGE	MSL	2 TIGHT LOOP OF CORD,EXTENSION,UTERINE ATONY	390	NO	-	-	1	2.8	2	0	0	0	0	1	0		
1039772	28	7	3	3	UNREG	1	7	3	2	-	G2P1L1A1	2.4	38.2	PT ELEC	PRE LABOR	CDMR		220	NO	-	-	1	3.08	2	0	0	0	0	1	0		
1040167	32	5	6	1	REG	2	1	2	2	-	G2P1L1	2.9	38.2	FT EMER	FIRST STAGE	CPD	EXTENSION,UTERINE ATONY	660	NO	-	-	1	3.3	1	0	0	0	0	1	0		
1040293	34	5	6	1	REG	2	1	2	2	OLIGO	G2P1L1	2.7	38.5	FT EMER	FIRST STAGE	FETAL DISTRESS	EXTENSION/U/L UTERINE LIGATION	460	NO	-	-	1	3.5	2	0	0	0	0	1	0		
1040454	31	8	4	3	REG	7	7	2	2	-	G4P1L2	2.2	39.2	PT ELEC	PRE LABOR	OLIGO		250	NO	-	-	1	2.9	2	0	0	0	0	1	0		
1040667	31	7	6	3	UNREG	1	4.1	1	2	GEST HTN,PRECIOUS PREGNANGY	G3P1L1A1	2.5	36.6	PT ELEC	PRE LABOR	PRECIOUS PREGNANCY		440	NO	-	-	1	2.9	1	0	0	0	0	1	0		
1042078	28	5	6	3	REG	5	1	3	2	-	G4P2L2A1	3.3,5	39.1	FT EMER	FIRST STAGE	CPD	2 TIGHT LOOP OF CORDE,EXTENSION,UTERINE ATONY,B/L UTERINE LIGATION	550	NO	-	-	1	3.5	1	0	0	0	0	1	0		
1042074	26	7	6	3	REG	3	1	1	2	APH	G2P1L1	3	36.6	PT EMER	FIRST STAGE	PLACENTA PREVIA	B/L UTERINE ATONY	440	NO	4 RDP		1	3.2	1	0	0	0	0	1	0		
1041884	26	6	6	3	UNREG	6	1	2	2	FGR,OLIGO	G3P2L2	3.1,2.5	35.1	PT EMER	PRE LABOR	FETAL DISTRESS		300	NO	-	-	1	2.2	2	0	0	0	0	1	0		
1041787	30	7	3	2	REG	2	2	3	2	GDM	G4P2L2A1	2.5	37.4	PT EMER	FIRST STAGE	MSL		250	NO	-	-	1	3.1	2	0	0	0	0	1	0		
1042838	33	7	5	3	REG	4	3	2	2	-	G3P1L1A1	3.25	40	FT EMER	FIRST STAGE	FETAL DISTRESS		340	NO	-	-	1	3.1	2	0	0	0	0	1	0		
1042929	23	4	3	2	REG	3	4	1	2	IGT,HYPOTHYROIDISM	G2P1L1	2.5	38.4	FT EMER	FIRST STAGE	MSL		400	NO	-	-	1	3.2	2	0	0	0	0	1	0		
1043615	22	6	5	2	REG	1	9	6	2	PRECIOUS PREGNANCY,HYPOTHYROIDISM	G3P1L0	3.3	38.1	FT EMER	FIRST STAGE	PRECIOUS PREGNANCY		250	NO	-	-	1	2.8	2	0	0	0	0	1	0		
1043884	30	5	4	1	REG	3	5	3	2	IGT	G3P2L2	3.3,5	40	FT EMER	FIRST STAGE	BROW		390	NO	-	-	1	3.9	2	0	0	0	0	1	0		
1043947	35	7	2	1	UNREG	5	4	12	2	CHR HTN WITH SUPERIMPOSED PE,FGR,AEDF	G4P2L2A1	2.6	30.1	PT EMER	PRE LABOR	REVERSAL OF END DIASTOLIC FLOW		390	NO	-	-	1	917 G	1	0	0	0	1	0	0	0	0
1046380	35	5	2	1	REG	7	4	17	2	-	G5P2L1A2	3.4,3.9	36.1	PT EMER	FIRST STAGE	BREECH		300	NO	-	-	1	3.9	1	0	0	0	0	1	0		
1046841	35	5	6	2	UNREG	5	4	6	2	SEVERE PE,FGR	G2P1L1	2.8	30.4	PT EMER	PRE LABOR	SEV PE WITH AEDF		400	NO	-	-	1	1.02	2	0	0	0	0	1	0	0	
1047312	32	5	6	1	REG	2	1	5	2	HYPOTHYROIDISM,ANAMINOS	G5P2L2A2	2.5,3.5	40	FT EMER	PRE LABOR	ANAMINOS		400	NO	-	-	1	3.1	2	0	0	0	0	1	0		
1047604	29	5	6	1	UNREG	3	4	4	2	MILD PE	G3P2L1	unknown	35.6	PT EMER	FIRST STAGE	IUGR WITH PATHOLOGICAL TRACE		400	NO	-	-	1	1.4	1	0	0	0	0	1	0		
1048360	21	5	6	1	REG	2	1	2	2	-	G3P2L2	3.5,2.5	36.4	PT EMER	FIRST STAGE	NON REASSURING NST		430	NO	-	-	1	2.6	2	0	0	0	0	1	0		
1048537	32	5	6	1	REG	2	3	4	2	-	G2P1L1	1.5	37.4	FT EMER	FIRST STAGE	BREECH		310	NO	-	-	1	2.5	1	0	0	0	0	1	0		
1049040	30	7	6	3	REG	4	1	4	2	SEVERE PE,TORCH +	G2P1L1	3.2	39.3	PT EMER	FIRST STAGE	SEVERE PE		300	NO	-	-	1	2.5	2	0	0	0	0	1	0		
1049188	28	8	6	3	REG	1	1	3	2	COVID POSITIVE	G2P1L1	3	38.3	PT EMER	FIRST STAGE	NPL		400	NO	-	-	1	3.1	2	0	0	0	0	1	0		
1049593	36	7	6	3	REG	5	4.5	4	2	PARTIAL HELLP,PE,HYPOTHYROIDISM	G3P1L1A1	2.4	34.1	PT EMER	PRE LABOR	PARTIAL HELLP	MSL	470	NO	-	-	1	1.3	1	0	0	0	0	1	0		
1049770	26	5	6	1	REG	2	1	1	2																							

1121867	25	8	5	1	REG	1	7	6	2	OLIGOJUGR WITH INCREASED RESISTANCE_RH NEGATIVE PREGNANCY	G2P1L1	2.5	40W2D	PT EMER	PRE LABOR	CORD PROLAPSE	-	350	NO	4 RDP	-	1	3.2	1	0	0	0	1	-
1094331	25	8	5	2	UNREG	1	1	5	2	ANAMINOS ANEMIA	G2P1L1		39W1D	PT EMER	PRE LABOR	FETAL DISTRESS-	-	450	NO	-	-	1	2.2	2	0	0	1(RDS)	1	-
1095886	25	4	5	2	UNREG	1	1	4	2	DCDA,EARLY ONSET FGR WITH NORMAL DELIVERY	G5P4L4	UNKNWN	37W3D	FT EMER	PRE LABOR	PPROM WITH BOH	-	350	NO	-	-	1	3.1	2	0	0	0	1	-
1095337	26	5	5	2	UNREG	1	7	10	2	DCDA, IUD	G3P2L2	2.3,3	38W4D	PT EMER	FIRST STAGE	ANAMINOS	-	350	NO	-	-	1	3.5	1	0	0	0	1	-
1095518	25	5	5	2	REG	1	1	17	2	DCDA, IUD	G3P2L2	2.5,2.7	40W	FT EMER	FIRST STAGE	FETAL DISTRESS	-	390ML	NO	-	-	1	3.2	2	0	0	0	1	-
1096492	24	6	5	2	UNREG	1	1	6	2	-	G2P1L1	3	37W2d	FT ELEC	PRE LABOR	ANAMINOS	B/L uterine artery ligation	590ML	NO	-	-	1	2.8	2	0	0	0	1	-
1097146	23	6	5	2	REG	1	7	6	2	ANEMIA, PLACENTA PREVIA	G2P1L1	3.1	39W	FT EMER	FIRST STAGE	Severe PE with uncontrolled hypertension	-	340	NO	-	-	1	3.9	2	0	0	0	1	-
1098520	21	6	6	2	REG	1	5	4	2	CENTRAL PLACENTA PREVIA,GESTATINAL HYPERTENSIN,	G3P1L1A1	3	37W5D	FT EMER	FIRST STAGE	CPD	-	480	NO	-	-	1	917 G	1	0	0	1	1	-
1098602	21	6	6	2	REG	2	7	9	2	-	G3P2L2	2,6,3,5	37W2D	FT EMER	PRE LABOR	Severe PE with uncontrolled hypertension	-	440ML	NO	-	-	1	3.9	1	0	0	0	1	-
1098456	22	5	6	2	REG	2	1	3	2	ANEMIA	G4P3L2	UNKNOWN	38W6D	PT ELEC	PRE LABOR	POST MYOMECTOMY	-	430	NO	-	-	1	1.02	2	0	0	1(LBW)	1	-
1098381	23	5	6	2	REG	2	5	5	2	IUGR WITH INCREASED RESISTANCE ON DOPPLER	G2P1L1	2.7	41W	FT EMER	PRE LABOR	THICK MSL	Convalaries uterus	370	NO	-	-	1	3.1	2	0	0	0	1	-
1100182	22	5	6	2	REG	2	1	7	2	POST DATISM	G2P1L1	2	39W3D	PT EMER	PRE LABOR	THICK MSL	-	350	NO	-	WOUND GAPE	1	1.4	1	0	0	1(LBW,RDS)	1	-
1100032	21	5	6	2	REG	2	7	7	2	PLACENTA PREVIA	G2P1L1	3	38W3D	FT EMER	FIRST STAGE	NPL	-	350ML	NO	-	-	1	2.6	2	0	0	0	1	-
1100460	22	5	6	1	REG	2	1	9	2	IGT	G2P1L1	UNKNWN	37W	PT ELEC	PRE LABOR	FETAL DISTRESS-	-	340	NO	-	-	1	2.5	1	0	0	0	1	-
1100801	24	5	6	1	UNREG	3	1	12	2	TRANSVERSE LIE,POLYHYDRAMINOS,SEVERE PE	G2P1L1	2.5	36w	FT EMER	FIRST STAGE	COMPLETE PLACENTA PREVIA	RIGHT UTERINE ARTERY LIGATION	NO	NO	-	-	1	2.5	2	0	0	0	1	-
1100905	25	5	6	1	UNREG	3	7	5	2	TRANSVERSE LIE	G2P1L1	3	38W1D	PT EMER	PRE LABOR	FETAL DISTRESS	-	330ML	NO	-	-	1	2.9	2	0	0	0	1	-
1101069	26	5	6	1	UNREG	3	7	5	2	DCDA,SHORT CERVIX	G2P1L1	2.8	40W3D	FT EMER	PRE LABOR	CPD	-	490	NO	-	-	1	1.3	1	0	0	1(LBW,RDS)	1	-
1101363	27	5	6	2	UNREG	2	7	5	2	-	G3P1L1D1	UNKNOWN,1,6	37W	PT EMER	PRE LABOR	IMMINENT ECLAMPSIA	-	540	NO	-	-	1	3.4	2	0	0	1	1	-
1101448	28	5	5	2	UNREG	2	3	4	2	POST DATISM	G4P2L3	8,2,6,2,8	39W 2D	FT EMER	FIRST STAGE	FETAL DISTRESS	-	400	YES	-	-	1	2.6	2	0	0	0	1,1	-
1100699	29	5	5	2	UNREG	2	7	3	2	SEVERE PE,FGR	G2P1L1	2.7	38W	FT EMER	FIRST STAGE	RHD WITH MS WITH PAH	B/L uterine ligation	700	NO	-	-	1	3.17	1	0	0	0	1	-
1101524	30	5	5	1	UNREG	1	3	5	2	GDM	G2P1L1	3.1	34W	FT EMER	FIRST STAGE	Severe PE with uncontrolled hypertension	-	780	NO	-	-	1	3.4	2	0	0	0	1	-
1101763	20	5	5	1	UNREG	1	1	7	2	-	G2P1L1		33W4D	FT EMER	FIRST STAGE	FETAL DISTRESS	-	450	NO	-	-	1	2.6	1	0	0	1	1	-
1101723	20	5	5	1	REG	2	2	4	2	BOH,GEST HTN	G3P1L0A1	UNKNOWN WEIGHT	39W4D	FT EMER	FIRST STAGE	MACROSOMIA	-	550	NO	-	-	1	3.4	1	0	0	0	1	-
1101745	28	6	5	1	REG	2	2	4	2	THROMBOCYTOPENIA	G2P1L1	2.4	37W5D	PT EMER	PRE LABOR	CERVICAL DYSTOCIA	-	NO	NO	-	-	1	1.44	2	0	0	1	1	-
1102277	27	6	5	1	REG	1	7	5	2	-	G2P1L1	2.3	39W4D	FT EMER	PRE LABOR	THICK MSL	-	450	NO	-	-	1	2.5	2	0	0	0	1	-
1102513	23	6	5	1	UNREG	1	1	6	2	-	G2P1L1	3	35W	PT EMER	PRE LABOR	PLACENTA PREVIA	-	650	NO	-	-	1	2.4	2	0	0	0	1	-
1102780	25	6	3	1	UNREG	2	7	1	1	GDM,MACROSOMIA,POLYHYDRAMINOS	G3P2L2	2.5,1.6	36W3D	PT EMER	PRE LABOR	OBSTRUCTED LABOR	-	450	NO	-	-	1	0.8	1	0	0	0	1	-
1102790	26	7	5	1	REG	1	3	9	2	-	G2P1L1	3	39W6D	PT EMER	PRE LABOR	THICK MSL	Hayman suturing	390ML	NO	1 SDF,1PCV	-	1	19.2	2	2	0	0	1	-
1103232	27	7	4	1	REG	2	7	9	2	HYPOTHYROIDISM	G2P1L1	3	40W1D	PT EMER	FIRST STAGE	THICK MSL	-	550	NO	-	-	1	1.8	1	0	0	1	1	-
1103404	28	7	6	1	REG	2	1	11	2	-	G2P1L1	3	34W5D	FT EMER	FIRST STAGE	CORD ENTANGLEMENT	-	230	NO	-	-	1	3.5	2	0	0	0	1	-
1103546	23	6	6	1	REG	1	1	2.5	2	DCDA	G2P1L1	2.5	30W2D	PT ELEC	PRE LABOR	CDMR	-	280	NO	-	-	1	3.2	1	0	0	0	1	-
1103634	22	6	6	1	REG	1	7	12	2	POST DATISM,POLYHYDRAMINOS,HYPOTHYROIDISM				FT EMER	FIRST STAGE	LOW LYING PLACENTA	-	NO	NO	-	-	1	2.5	1	0	0	0	1	-
1103742	22	5	6	2	REG	1	4.1	12	2	GDM	G4P2L2A1	2.5,3	38	FT EMER	FIRST STAGE	FAILED INDUCTION	-	540	NO	-	-	1	3.4	2	0	0	0	1	-
1103814	23	6	6	2	REG	2	1	5	2	HYPOTHYROIDISM	G2P1L1	2.7	37.3	FT EMER	PRE LABOR	POP	-	300	NO	-	-	1	3	2	0	0	0	1	-
1104978	24	7	6	2	REG	2	1	10	2	-	G2P1L1	3	40.1	PT ELEC	PRE LABOR	FETAL DISTRESS	-	440ML	YES	-	-	2	3.7	2	0	0	0	1	-
1104964	25	6	6	2	REG	2	1	4	1	OLIGO	G2P1L0		35.6	FT EMER	PRE LABOR	MACROSOMIA	-	870	NO	-	-	1	1.46	2	0	0	0	1	-
1105387	26	6	7	2	REG	1	2	2.5	2	-	G2P1L1	2.5	38.5	PT EMER	PRE LABOR	FETAL DISTRESS	-	480	NO	-	-	1	3.2	1	0	0	1	1	-
1156609	27	6	5	2	REG	1	3	6	2	-	G2P1L1	2.5	33.2	FT EMER	FIRST STAGE	BREECH	-	450	NO	-	-	1	3.3	1	0	0	0	1	-
1105352	28	6	7	2	UNREG	1	4	5	2	-	G2P1L1	2.6		PT ELEC	PRE LABOR	ANAMINOS	-	550	NO	-	-	1	3.1	1	0	0	0	1	-
1105931	29	6	6	2	UNREG	3	9	6	2	-	G2P1L1		37.6	FT EMER	FIRST STAGE	POP	PPH,Hayman suturing	450	NO	-	-	1	2.7/2.6	1.1	0	0	0	1	-
1106096	30	6	7	2	UNREG	3	5	9	2	PRECIOUS PREGNANCY	G3P2L1	1.5,2.5	39.2	PT EMER	PRE LABOR	Severe PE with uncontrolled hypertension	EXTENSION,U/L UTERINE ARTERY LIGATION	430	NO	-	-	1	2.6	2	0	0	0	1	-
1105412	31	6	5	2	UNREG	4	4	6	2	GDM,MACROSOMIA	G4P3L3	3,2,7,2	34.6	FT EMER	PRE LABOR	PERSISTENT LOP	1 TIGHT LOOP OF CORD	330ML	NO	-	-	1	2.5	1	0	0	0	1	-
1106580	32	6	7	2	UNREG	4	4	16	1	-	G3P2L1	NOT KNOWN	37.1	PT EMER	PRE LABOR	FETAL DISTRESS	-	300ML	NO	1 PCV	-	1	3.1	1	0	0	0	1	-
1107479	24	7	7	2	UNREG	2	4	8	1	-	G4P1L1D1A1	3.5,3	40.2	FT EMER	FIRST STAGE	PRECIOUS PREGNANCY	-	600ML	NO	-	-	1,1	1.8,1.96	1.1	0	0	1,1	-	
1108083	26	7	7	2	UNREG	2	1	7	2	-	G3P2L1	NOT KNOWN	40.2	FT EMER	FIRST STAGE	BREECH IN LABOR	EXTENSION,U/L UTERINE ARTERY LIGATION, ATONY	450	NO	-	-	1	3.2	1	0	0	0	1	-
1107882	27	7	4	2	UNREG	1	7	5	2	-	G3P1L1A1	3	39.5	FT EMER	FIRST STAGE	PRECIOUS PREGNANCY	-	459	NO	-	-	1	2.2	2	0	0	0	1	-
1108413	29	6	3	2	UNREG	1	7	6	1	OLIGO	G5P3L3A1	3,2,5	40.5	FT EMER	FIRST STAGE	Severe PE with uncontrolled hypertension	MSL,EXTENSION,U/L UTER LIGATION	230	NO	-	-	1	3	1	0	0	0	1	-
1109402	20	6	3	2	UNREG	1	7	5	1	-	G3P2L2	2,3,2,5	40.6	FT EMER	FIRST STAGE	FETAL DISTRESS	U/L UTERINE LIGATION	480	NO	-	-	1	1.7	1	0	0	1	1	-
1109573	20	6	3	2	UNREG	1	3	10	2	GEST HTN,PRECIOUS PREGNANCY	G3P2L2	-3,5	39.2	FT EMER	PRE LABOR	TRANSVERSE LIE	-	450	NO	-	-	1	2	1	0	0	0	1	-
1109583	21	6	5	2	REG	1	3	17	2	-	G3P1L1A1		37.1	FT EMER	PRE LABOR	BOH	-	450	YES	-	-	1	2.1	2	0	0	0	1	-
1110604	22	5	7	2	REG	2	7	6	2	APH	G5P2L2A2	2.5,3	40.3	FT EMER	PRE LABOR	CDMR	UTERINE ATONY	NO	NO	-	-	1	2.4	1	0	0	0	1	-
1111020	24	5	5	2	UNREG	2	7	6	1	FGRO,OLIGO	G2P1L1	3.5	37.1	FT EMER	SECOND STAGE	MSL	2 TIGHT LOOP OF CORD,EXTENSION,UTERINE ATONY	350	NO	-	-	1	2.4	1	0	0	0	1	-
1109528	25	6	3	2	UNREG	1	1	4	2	GDM	G5P3L3A1	2.5,2,2,2	39.3	PT ELEC	PRE LABOR	Severe PE with uncontrolled hypertension	2 TIGHT LOOP OF CORD,EXTENSION,UTERINE ATONY	440	YES	-	-	1	2.6	1	0	0	0	1	-
1111162	25	5	4	2	REG	1	1	9	2	-	G3P1L1A1	3.5	36.5	FT ELEC	PRE LABOR	FETAL DISTRESS	-	440	NO	-	-	1	2.4kg	2	0	0	0	1	-
1111589	25	5	4	1	UNREG	3	1	3	2	IGT,HYPOTHYROIDISM	G4P2L1A1	0.5,1,2	36.4	FT EMER	PRE LABOR	PLACENTA PREVIA	EXTENSION,ATONY	420	NO	-	-	1	1.5	2	0	0	0	1	-
1112743	26	5	5	1	UNREG	3	1	5	2	PRECIOUS PREGNANCY,HYPOTHYROIDISM	G2P1L1	2.5	38.1	FT EMER	FIRST STAGE	Severe PE with HELLP	EXTENSION,U/L UTERINE LIGATION	380	NO	-	-	1	3.1kg	1	0	0	0	1	-
1113527	23	5	6	1	UNREG	4	1	7	2	IGT	G4P3L3	2.5,3,3,5	40.1	FT EMER	PRE LABOR	FETAL DISTRESS	-	400	NO	-	-	1	2.6kg	1	0	0	0</		