Original research article

A prospective and observational study of risk factors and materno-fetal outcome of placenta previa

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 Abstract

Aims and Objectives: The goal of this study is to evaluate the prevalence of placenta praevia and the related risks to the mother and unborn child. Assess the significance of early identification and treatment by studying risk variables linked to maternal and foetal morbidity and death in placenta praevia.

Methods: This is a Prospective observational study. All pregnant women with placenta praevia admitted in the Dept. of Obstetrics and Gynaecology, GGH, Kakinada, from period of October 2020 to October 2022 with 100 sample size.

Results: Majority of study subjects 45% belong to age group of 25-29 years in the present study. 53% were illiterates in the present study, 41% belong to class 4 SES, 42% were zero parity, 48% have one live birth, 58% had no history of abortion. Half of the study subjects had 50% were at term pregnancy. Multiparity is a predominant risk factor in the present study, 84% were cephalic presentation, 39% had type 2 placenta previa, 66% had elective LSCS. Nearly half of the study subjects required 1 unit of blood transfusion, 84% had live births. Half of the study subjects had pre-term babies, 61%, were of low birth weight. Most study subjects 68% had intrapartum hemorrhage as maternal complication.

Conclusion: Finally, an efficient referral system, the availability of resources, and public education may all help boost maternal and foetal outcomes. Such precautions will improve the health of the mother and the developing baby in all high-risk pregnancies.

Keywords: Placenta previa, pregnant women, hemorrhage, multiparity

Introduction

Reproduction relies on a delicate balancing act between the mother, the developing embryo, and the placenta. The placenta is the most vital connection between the pregnant woman and her developing baby. A healthy placenta is essential for the development of the foetus. "Placenta is the most accurate record of the infant's prenatal experiences," as noted by Kurt Benirschke (1981). The placenta's location and/or structure greatly affects the pregnancy's outcome. Most of the time, the placenta is located on the posterior uterine wall, close to the fundus, while it can also be found on the anterior uterine side. When the placenta covers the cervix or uterine opening, a condition known as placenta previa exists [1]. Placenta previa occurs when the placenta descends into the bottom third of the uterus for whatever reason [2]. It doesn't matter what causes placenta previa, the hazards to both mother and child are greatly raised.

There is a higher risk of puerperal infection and postpartum haemorrhage, both of which can be fatal to the mother. It's because the placenta, which attaches to the lowest part of the uterus, shrinks the least after birth. Abnormal placental adhesions are also a major risk during pregnancy. There is an increased risk of having a baby with a defect, giving birth prematurely, having a kid with a low birth weight, having a baby die in the womb, or having a baby asphyxiate at delivery. Around 33.33 percent of all antepartum haemorrhages are caused by placenta previa, according to many studies, which means that antepartum haemorrhage is a rather common complication of pregnancy [3]. Older mothers having their first child, having more than one child, having had an abortion (natural or surgical), and having more than one child are all variables that increase the likelihood of complications. Around 30% of maternal deaths were caused directly by haemorrhage. Around 0.33% to 0.55% of all pregnancies are complicated by APH; this includes cases of placenta praevia (PP) and abruptio placenta (AP), respectively [4].

As Placenta previa can cause significant haemorrhagic haemorrhage during pregnancy and even at the moment of birth, it is associated with a high rate of maternal and foetal morbidity and death as well as a high cost to the health care system [5-7]. Being one of the leading causes of maternal death, it is one of the obstetrician's biggest fears [8, 9]. From 1982 to 2002, the caesarean section rate was 1 in 533 births, which is much higher than the 1 in 4027 births reported in the 1970s and the 1 in 255 births reported in the

1980s [10]. This rise is likely due to the rising prevalence of placenta previa [2].

Materials and Methods

This is a Prospective observational study. All pregnant women with placenta praevia admitted in the Dept. of Obstetrics and Gynaecology, GGH, Kakinada, from period of October 2020 to October 2022 with 100 sample size.

Inclusion criteria
- All women diagnosed placenta previa transvaginally or transabdominally either during second and third trimester of pregnancy or intraoperatively.
- All patients attending to antenatal outdoors with diagnosis of placenta previa and patients coming to emergency with the complaints of antepartum hemorrhage because of placenta previa were included in the study irrespective of their parity, type of placenta previa, and with a live or dead foetus.
- Patients who have given consent for the study.

Exclusion criteria
- Patients who don't give consent for the study.
- Antepartum hemorrhage because of other causes were excluded from the study.
- Patients who are in sepsis and Patients who are already suffering from any other bleeding disorders.
- Cardiac patients and intensive care patients.

Results

Table 1: Distribution of study subjects based on **AGE** (N=100)

Age	Frequency	Percent
< 20 Years	7	7
20-24 Years	18	18
25-29 Years	45	45
30-34 Years	27	27
> 35 Years	3	3
Total	100	100

In the present study, most of the study subjects are in the age group 25-29 years 45% followed by age group 30-34 years constitutes 27%, 20-24 years constitutes 18%, less than 20 years constitutes 7% and greater than 35 years only 3%. Mean Age in the study is 25±4.1SD.

Table 2: Distribution of study subjects based on **EDUCATION** (N=100)

Education	Frequency	Percent
Illiterate	53	53.0
Literate	47	47.0
Total	100	100.0

Majority of the study subjects are Literate which constitutes 47% and illiterate constitutes 53%.

Table 3: Distribution of study subjects based on **SES** (N=100)

Socio Economic Status-SES	Frequency	Percent
Class 1	15	15.0
Class 2	12	12.0
Class 3	28	28.0
Class 4	41	41.0
Class 5	4	4.0
Total	100	100.0

Among the study subjects, Majority are Class 4 has majority socio economic status which constitutes 41% followed by Class 3 which constitutes 28%, Class 1 constitutes 15%, Class 2 constitutes 12% and Class 5 constitutes only 4%.

Table 4: Distribution of study subjects based on **STATUS** (N=100)

Booked/Unbooked	Frequency	Percent
Booked	91	91.0
Un booked	9	9.0
Total	100	100.0

In the present study, majority of the study subjects were booked which constitutes 91% and un booked constitutes only 9%.

Table 5: Distribution of study subjects based on **PARA** (N=100)

Para	Frequency	Percent
Zero	42	42.0
One	41	41.0
Two	17	17.0
Total	100	100.0

In the present study, Nulliparous are 42% which is highest followed by 41% which is para one and least were 17% para two.

Table 6: Distribution of study subjects based on **LIVE** (N=100)

Live	Frequency	Percent
Zero	43	43.0
One	48	48.0
Two	9	9.0
Total	100	100.0

Among the study subjects, L one are majority of study subjects which constitutes 48% followed by Zero constitutes 43% and Two constitutes 9%.

Table 7: Distribution of study subjects based on **ABORTIONS** (N=100)

Abortion	Frequency	Percent
Zero	58	58.0
One	32	32.0
Two	10	10.0
Total	100	100.0

In the present study, majority of the study subjects have no abortions which constitutes 78% followed by One which constitutes 17% and for Two only 5%.

Table 8: Distribution of study subjects based on **BMI** (N=100)

BMI	Frequency	Percent
Under Weight (<18.5)	18	18
Normal (18.5-22.9)	47	47
Over Weight (23-24.9	22	22
Obesity (>=25)	13	13
Total	100	100

Study subjects based on BMI, most of them are with normal BMI 47% followed by 22% over weight, 18% underweight, and only 13% were obese.

Table 9: Distribution of study subjects based on **GESTATIONAL AGE** (N=100)

Gestational Age	Frequency	Percent
28-31 Weeks	15	15
32-36 Weeks	35	35
37-38 Weeks	50	50
Total	100	100.0

Among the study subjects, majority of the gestational age were in between 37-38 weeks which constitutes 50% followed by 32-36 weeks which constitutes 35% and 28-31weeks constitutes 15%.

Table 10: Distribution of study subjects based on **RISK FACTORS** (N=100)

S. No.	Risk factors	Frequency	Percent
1	Multiparity	80	80
2	H/O Csection	60	60
3	Abortion	40	40
4	Curettage	37	37
5	IUCD Insertion	22	22
6	Infertility Treatment	18	18
7	H/O Hysterotomy	12	12
8	BIG Placenta	12	12
9	H/O Myomectomy	5	5
10	Maternal Age >35	3	3
11	H/O Placenta Previa	2	2
12	Succentuate Lobe	1	1
13	Smoking	1	1

In the present study, study subjects with Multiparity was the majorRisk factor which constitutes 80%, followed by H/O C section which constitutes 60%, Abortion constitutes 40%, Curettage constitutes 37%, IUCD Insertion 22%, Infertility treatment constitutes 18%, H/O Hysterotomy constitutes 12%, Big placenta constitutes 12%, H/O Myomectomy constitutes 5%, Maternal age>35 constitutes 5%, H/O placenta previa constitutes 2%, Succentuate lobe constitutes 1% and smoking constitutes 1%.

Table 11: Distribution of study subjects based on **PRESENTATION** (N=100)

Presentation	Frequency	Percent
Abdominal pain	24	24
Fetal distress	14	14
Vaginal bleed	50	50
Follow up cases	12	12
Total	100	100

Majority of the study subjects presented with Vagina Bleed constitutes 50%which I is highest followed by Abdominal pain constitutes 24%, Fetal distress constitutes 14% and Follow up for low lying placenta constitutes 12%.

Table 12: Distribution of study subjects based on **CONSERVATIVE MANAGEMENT** (N=100)

Gestational Age	Conservative Management	Percentage
28-32 WEEKS	2	22
32-34 WEEKS	4	45
35-37 WEEKS	3	33
Total	9	100

In the present study conservative management was done for 22% of total study subjects with gestational age 28-32 weeks, 45% with gestational age 32-34 weeks, 33% with gestational age 35-37 weeks. Over all only 9% of study subjects received conservative management.

Table 13: Distribution of study subjects based on **FETAL PRESENTATION** (N=100)

Fetal presentation	Frequency	Percent
Breech	10	10.0
Cephalic	84	84.0
Transverse lie	6	6.0
Total	100	100.0

In the present study, majority of the study subjects were cephalic with foetal presentation constitutes 84% followed by Breech which constitutes 10% and transverse lie constitutes 6%. Majority have cephalic presentation and least have transverse lie.

Table 14: Distribution of study subjects based on **TYPES OF PLACENTA PREVIA** (N=100)

Types	Frequency	Percent
Type - I	14	14
Type - II	39	39
Type - III	36	36
Type - IV	11	11
Total	100	100

Among the study subjects, Type 2 of Placenta Previa has majority which constitutes 39% followed by Type 3 which constitutes 36%, Type 1 constitutes 14 %and type 4 constitutes 11%.

Table 15: Distribution of study subjects based on **MODE OF DELIVERY** (N=100)

Types	Frequency	Percent
NVD	12	12
Elective section	66	66
Emergency section	22	22
Total	100	100

In the present study majority of the study subjects had elective section which constitutes 66% followed by emergency section which constitutes 22% and NVD constitutes 12%.

Table 16: Distribution of study subjects based on **BLOOD TRANSFUSION** (N=100)

Blood Transfusion	Frequency	Percent
1 Unit	52	52
2 Units	26	26
3 Units	5	5
4 Units	11	11
5 Units	6	6
Total	100	100

Majority of the study subjects has blood transfusion were one Unit which constitutes 52% followed by two Units which constitutes 26%, four units constitutes 11%, five Units constitutes 6% and three Units constitutes 5%.

Table 17: Distribution of study subjects based on **PREVIOUS SECTION** (N=100)

Previous section	Frequency	Percent
No	40	40
Yes	60	60
Total	100	100.0

Majority of study subjects who has previous section were 60% followed by study subjects who don't has previous section were 40%.

Table 18: Distribution of study subjects based on **FETAL OUTCOME** (N=100)

Fetal outcome	Frequency	Percent
Live	84	84.0
Still birth	5	5.0
IUD	11	11.0
Total	100	100.0

In the present study, majority of the study subjects of fetal outcome was Live which constitutes 84% followed by IUD which constitutes 11% and still birth constitutes 5%.

Table 19: Distribution of study subjects based on **PRETERM/TERM** (N=100)

Preterm/term	Frequency	Percent
Preterm	50	50.0
Term	50	50.0
Total	100	100.0

In the present study both the preterm and term study subjects constitute 50%.

Table 20: Distribution of study subjects based on **BIRTH WEIGHT** (N=100)

Birth weight	Frequency	Percent
<1500 Grams	10	10
1500-2500 Grams	61	61
>2500 Grams	29	29
Total	100	100

Among the study subjects majority of them whose birth weight was 1500-2500gms which constitutes 61% followed by >2500gms and <1500gms constitutes 10%.

Table 21: Distribution of study subjects based on **FETAL COMPLICATIONS** (N=100)

S. No.	Fetal Complications	Frequency	Percent
1	LBW	60	60
2	Detal Growth Restriction	18	18
3	Birth Asphyxia	42	42
4	IUD	11	11
5	Congenital Anomalies	7	7
6	NICU Admissions	56	56
7	Preterm	50	50

Majority of the study subjects with fetal complications most of them were LBW which constitutes 60% followed by NICU admission which constitutes 56%, Preterm constitutes 50%, Birth Asphyxia constitutes 42%, Detal growth restriction constitutes 18%, IUD constitutes 11% and Congenital anomalies constitutes 7%.

Table 22: Distribution of study subjects based on **MATERNAL COMPLICATIONS** (N=100)

S. No.	Maternal Complications	Frequency	Percent
1	Cesarean Section	60	60
2	Intrapartum Haemmorage	68	68
3	PPH	62	62
4	Prom	56	56
5	Malpresentation	28	28
6	Retained Bits of Placenta	12	12
7	Hysterectomy	8	8
8	Placenta Accreta	3	3
9	Cord Prolapse	2	2
10	Maternal Death	2	2
11	Placenta Percreta	1	1

Most (68%) of the women who experienced material complications during the course of the study had intrapartum haemorrhage; next most (62%) had preeclampsia; 60% had caesarean section; 56% had preterm premature rupture of the membranes; 28% had malpresentation; 12% had retained pieces of placenta; 8% had hysterectomy; 3% had cord prolapse; 2% had maternal death; 1% had placenta percreta.

Discussion

Age

In the present study, most of the study subjects are in the age group 25-29 years 45% followed by age group 30-34 years constitutes 27%, 20-24 years constitutes 18%, less than 20 years constitutes 7% and greater than 35 years only 3%.

Qiuying Yang et al., [11] 2009 in their study reported that 4% were < 20 years, 40% were 20-29 years, 50% were 30-39 years and 5% were ≥ 40 years.

Shruthi Prashanth et al., 2012-14 in their study reported that 1.7% were < 19 years age group, 73% were 20-29 years age group, 20% were 30-35 years age group and 5% were >35 years age group [12].

Santu Maiti et al., (74,75) 2014 in their study reported that maternal age is a significant risk factor for placenta previa.

Meenakshi et al., [13] 2014-16 in their study reported that maternal age is a significant risk factor for placenta previa.

Rajeswari R Raja et al., 2016 in their study reported that placenta previa is highest in age group of 20-29 years i.e., 80% [14].

Maunica Reddy Sorakayalapeta et al., 2016-17 in their study reported that majority of study subjects 49% belong to age group of 25-29 years [15].

Santhoshi Kumari et al., 2018 in their study reported that majority of study subjects 71% belong to age group of 20-30 years [16].

Lad et al., 2017-19 in their study reported that majority of study subjects belong to age group of 26-30 years [17].

Haripriya devi sanglakpam et al., 2017-19 in their study reported that 52% of study subjects belong to age group of 20-30 years [18].

Seema Dwivedi et al., 2018 in their study reported that 51% of study subjects were 20-30 years age group [19].

In al the studies majority of study subjects belong to age group of 20-30 years which is also similar in the present study.

Education

Majority of the study subjects are Literate which constitutes 47 and illiterate constitutes 53.
Qiuying Yang et al., 2009 in their study reported that only3.5% were illiterates and remaining were literates [11].

SES

Among the study subjects, Class 4 has majority socio economic status which constitutes 41 followed by Class 3 which constitutes 28, Class 1 constitutes 15, Class 2 constitutes 12 and Class 5 constitutes only 4.
Lad et al., 2017-19 in their study reported that majority of stud subjects belong to low SES [17].
In several studies, majority of study subjects belong to low SES which is also similar in the present study.

Ooking status

In the present study, majority of the study subjects were booked which constitutes 91 and unbooked constitutes only 9.
Lad et al., 2017-19 in their study reported that majority of the cases for booked [17].

Para

42% OF study subjects were of zero parity, 41% were first parity and 17% were second parity.
Qiuying Yang et al., 2009 in their study reported that 20% were zero parity, 27% were first parity and 53% were two and above parity [11].
Shruthi Prashanth et al., 2012-14 in their study reported that 27% were first, 31% were second, 36% were third and 6% were fourth [12].
Santu Maiti et al., 2014 in their study reported that increased parity is a significant risk factor for placenta previa [20].
Meenakshi et al., 2014-16 in their study reported that multiparity is a significant risk factor for placenta previa [21].
Rajeswari R Raja et al., 2016 in their study reported that placenta previa is highest in multiparous women i.e. 63% [14].
Lad et al., 2017-19 in their study reported that majority of study subjects belonged to 2-3 parity [17].
Haripriya Devi Sanglakpam et al., 2017-19 in their stud reported that 32% were multiparous [18].
Ekta Jaiswal et al., 2018 in their study reported that 82% of stud subjects were multiparous [22].
Seema Dwivedi et al., 2018 in their study reported that 90% of study subjects were multiparous [19].
Multiparity is a predominant risk factor for placenta previa in several of the studies.

Live births

Among the study subjects, one has majority of study subjects who were Live which constitutes 48 followed by Zero constitutes 43 and Two constitutes 9.

Abortion

In the present study, zero has majority of the abortions which constitutes 78 followed by one which constitutes 17 and for two only 5.
Marianne S Hendricks et al., 2010 in their study reported that history of abortion is a significant risk factor for placenta previa [23].
Santu Maiti et al., 2014 in their study reported that history of abortion is a significant risk factor for placenta previa [20].
Meenakshi et al., 2014-16 in their study reported that history of abortion is a significant risk factor for placenta previa [21].
Rajeswari R Raja et al., 2016 in their study reported that placenta previa is highest with history of abortion i.e., 25% [14].
Maunica Reddy Sorakayalapeta et al., 2016-17 in their study reported that 18% had history of abortion [15].

History of abortion is a significant risk factor in several of the studies.

Gestational age (N=100)

Among the study subjects, majority of the gestational age were in between 37-38 years which constitutes 50 followed by 32-36 years which constitutes 35 and 28-31 years constitutes 15.
Haripriya devi sanglakpam et al., 2017-19 in their study reported 20% of study subjects were pre-term [18].

Seema Dwivedi et al., 2018 in their study reported that 47% belong to 30-34 weeks of gestational age [19].

Most of the study subject were pre-term which is also similar in several of the studies.

Presentation
Majority of the study subjects presented with Vagina Bleed constitutes 50 followed by Abdominal pain constitutes 24, Fetal distress constitutes 14 and follow up constitutes 12.

Fetal presentation
In the present study, majority of the study subjects were cephalic with fetal presentation constitutes 84 followed by Breech which constitutes 10 and transverse lie constitutes 6.

Types of placenta previa
Among the study subjects, Type 2 of Placenta Previa has majority which constitutes 39 followed by Type 3 which constitutes 36, Type 1 constitutes 14 and type 4 constitutes 11.
Shruthi Prashanth *et al*., 2012-14 in their study reported that 4% were type 1, 24% were type 2, 32% were type 3 and 40% were type 4 [12].
Rajeswari R Raja *et al*., 2016 in their study reported that major degree of placenta previa constitutes 69.4% [14].
Maunica Reddy Sorakayalapeta *et al*., 2016-17 in their study reported that 67% had major degree and 33% had minor degree [15].
Distribution of types of placenta previa is different in different studies due to some other associated factors.

Mode of delivery
In the present study majority of the study subjects had elective section which constitutes 66 followed by emergency section which constitutes 22 and NVD constitutes 12.
Shruthi Prashanth *et al*., 2012-14 in their study reported that only 6% had normal vaginal delivery and 94% had emergency LSCS [12].
Lad *et al*., 2017-19 in their study reported that in 81% of study subjects LSCS was done [17].
Ekta Jaiswal *et al*., 2018 in their study reported that 71% had emergency LSCS [22].
Seema Dwivedi *et al*., 2018 in their study reported that 14.5% had normal vaginal delivery and 85.5% had emergency LSCS [19].
Emergency LSCS is done in majority of study subjects in several studies which is also similar in present study.

Blood transfusion
Majority of the study subjects has blood transfusion were 1 Unit which constitutes 52 followed by 2 Units which constitutes 26, 4 units constitutes 11, 5 Units constitutes 6 and 3 Units constitutes 5.
Shruthi Prashanth *et al*., 2012-14 in their study reported that in 40% of study subjects blood transfusion was done [12].
Lad *et al*., 2017-19 in their study reported that 86% of stud subjects need blood transfusion [18].
Seema Dwivedi *et al*., 2018 in their study reported that 54% of study subjects required >1 unit of blood [18].
Blood transfusion is required in most of the studies.

Previous section
Majority of study subjects who has previous section were 60 followed by study subjects who don't has previous section were 40.
Qiuying Yang *et al*., 2009 in their study reported that previous history of c-section is present in 21% of study subjects [11].
Marianne S Hendricks *et al*., 2010 in their study reported that previous c-sec is significant risk factor for placenta previa [24].
Meenakshi *et al*., 2014-16 in their study reported that previous c-sec is a significant risk factor for placenta previa [21].
Rajeswari R Raja *et al*., 2016 in their study reported that previous history of c-section is present in 40% of study subjects [14].
Maunica Reddy Sorakayalapeta *et al*., 2016-17 in their study reported that 30% had previous c-section [15].
Ekta Jaiswal *et al*., 2018 in their study reported that 35% of study subjects had history of previous c-section [22].
History of previous c-sec is a predominant risk factor in several of the studies.

Fetal outcome (n=100)
In the present study, majority of the study subjects of foetal outcome was Live which constitutes 84 followed by IUD which constitutes 11 and still birth constitutes 5.
Shruthi Prashanth *et al*., 2012-14 in their study reported 0.5% neonatal death and 1% still birth [12].

Meenakshi *et al*., 2014-16 in their study reported that IUDs were 20% and 80% were alive [21].
Maunica Reddy Sorakayalapeta *et al*., 2016-17 in their study reported 3% of perinatal mortality [15].
Santhoshi Kumari *et al*., 2018 in their study reported that perinatal mortality is 20% [16].
Foetal outcome is different in different studies due to some other associated factors.

Preterm/Term
In the present study both the preterm and term study subjects constitute 50.
Shruthi Prashanth *et al*., 2012-14 in their study reported 37% of new-born were pre-term [12].

Birth weight
Among the study subject's majority of them whose birth weight was 1500-2500gms which constitutes 61 followed by >2500gms and <1500gms constitutes 10.

Foetal complications (N=100)
Majority of the study subjects with foetal complications most of them were LBW which constitutes 60 followed by NICU admission which constitutes 56, Preterm constitutes 50, Birth Asphyxia constitutes 42, foetal growth restriction constitutes 18, IUD constitutes 11 and Congenital anomalies constitutes 7.
Meenakshi *et al*., 2014-16 in their study reported that prematurity is 43%, 28% RDS, 14% aspiration, 48% required resuscitation and 24% NICU admission [21].
Rajeswari R Raja *et al*., 2016 in their study reported that prematurity is seen in 64% and RDS 5% [14].
Maunica Reddy Sorakayalapeta *et al*., 2016-17 in their study reported that 25% required NICU admissions and 10% RDS [15].
Santhoshi Kumari *et al*., 2018 in their study reported that 26% of study subjects required NICU admission [16].
Lad *et al*., 2017-19 in their study reported that prematurity was present in 44.3% of study subjects and 57% needed NICU admission [17].
A near similar distribution of foetal complications is seen in all studies.

Maternal complications (N=100)
Among the study subjects who has maternal complications, majority of them were Intrapartum Haemorrhage which constitutes 68 followed by PPH which constitutes 62, Caesarean section constitutes 60, PROM constitutes 56, Malpresentation constitutes 28, Retained bits of placenta constitutes 12, Hysterectomy constitutes 8, Placenta Accreta constitutes 3, Cord Prolapse constitutes 3, Maternal death constitutes 2 and Placenta per Creta constitutes only 1.
Shruthi Prashanth *et al*., 2012-14 in their study reported that zero maternal mortality [12].
Meenakshi *et al*., 2014-16 in their study reported that PPH is seen in 5% of study subjects and mortality is nil [21].
Maunica Reddy Sorakayalapeta *et al*., 2016-17 in their study reported 11% PPH and 1% of maternal mortality [15].
Santhoshi Kumari *et al*., 2018 in their study reported that PPH is present in 11% of study subjects [16].
Lad *et al*., 2017-19 in their study reported that PPH is seen in 32% of study subjects and maternal mortality is 4% [17].
Seema Dwivedi *et al*., 2018 in their study reported that haemorrhagic shock is seen in 25.6% of study subjects, postpartum haemorrhage in 29.8% of study subjects, acute renal injury in 4.58%, peripartum hysterectomy in 9.16% of study subjects and 3.4% maternal mortality [19]. A near similar distribution of maternal complications is seen in several of the studies.

Conclusion
Placenta previa is increasing in frequency among multiparous women with a history of caesarean section and curettage; early detection, counselling the patient about maternofoetal outcome, and quick therapy can reduce bad outcomes. Early prenatal visits by the patient and the identification of risk factors are particularly helpful in the diagnosis and management of morbidly adherent placenta. As many of the patients presented with prenatal, intranatal, or postnatal problems, and since preexisting anaemia is a risk factor for maternal morbidity, the maternal morbidity rate was high. Similarly, there was a large need for transfusions because of this. Efforts to prevent and treat anaemia during pregnancy and antepartum haemorrhage must be made directly. Reducing the main C/S and encouraging smaller families can help lower rates of placenta previa and morbidly adherent placenta. Referral to more advanced facilities should be made as soon as possible. Screening for and accurate diagnosis of aberrant placental localisation and placental separation thanks to the accessibility of ultrasonography and knowledgeable and qualified radiologist/sonologists. Maternal morbidity and death have increased due to the delay in referral from lower centres for women with APH.
So that tertiary care centres and medical schools aren't overwhelmed, it's important that the ones already in place perform optimally and that new ones be built to meet the growing demand for medical services.

Finally, an efficient referral system, the availability of resources, and public education may all help boost maternal and foetal outcomes. For all pregnancies considered dangerously close to the edge, these precautions will almost certainly lead to a more positive outcome for mother and child.

Conflict of interest: Nil.

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