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A Study of Antepartum hemorrhage and its maternal and perinatal outcome in Chengalpattu Medical College and Hospital

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Abstract
BACKGROUND:
An Antepartum hemorrhage is defined as bleeding into or from the genital tract from 24 weeks gestation and onwards, before the delivery of the baby. It is still a grave obstetric emergency contributing to a significant amount of maternal and perinatal morbidity and mortality in our country. Hemorrhage was a direct cause of maternal death in about 30% of cases. Although APH cannot be prevented ,maternal and perinatal morbidity and mortality associated with APH can be reduced significantly by prompt diagnosis and aggressive management.
STUDY DESIGN: *It is a prospective observational study.*
PLACE OF STUDY: *Chengalpattu medical college and hospital.*
METHODOLOGY: *Study involves all consenting pregnant women who presented with APH in the antenatal OPD and casualty, confirmed by clinical examination and by ultrasound, attending hospital during the study period.Through proper history taking and clinical examination and lab investigations, these patients were followed up till six weeks postpartum and complications arising in these patients and their fetuses, their incidence and perinatal outcome were evaluated during the study period.*
RESULTS: *Among the patients , below 30 age group was more in the study. Majority of patients were Primi and second gravida. Most patients were of gestational age between 28 to 36 weeks. During presentation only 22% of women had Hb less than 6.9 gm% that too majority cases were because of abruption placenta other 78%had Hb more than 7 gm%. Hence blood transfusion rates were more in the abruption placenta group. Preeclampsia and eclampsia contributed to 36% of cases of APH. Almost 50% of patients had to be taken up for emergency LSCS due to obstetric indications*.

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I. Introduction

An antepartum haemorrhage is defined as bleeding into or from the genital tract from 24 weeks' gestation and onwards, before the delivery of the baby (1). Antepartum haemorrhage (APH) has always been one of the most feared complications in obstetrics. Antepartum haemorrhage is still a grave obstetric emergency contributing to a significant amount of maternal and perinatal morbidity and mortality in our country. Haemorrhage was a direct cause of maternal death in about 30% of cases. (2) APH complicates about 2-5% of all the pregnancies with incidence of placenta praevia (PP) about 0.33% to 0.55% and incidence of abruptio placenta (AP) about 0.5- 1%. (3) The maternal complications in patients with APH are malpresentations, prematurelabour, postpartum haemorrhage(PPH),sepsis, shock and retained placenta. Various fetal complications are preterm baby, low birth weight, intrauterine death, congenital malformation and birth asphyxia. In developing countries, widespread pre-existing anaemia, difficulties with transport, restricted medical facilities, decreased awareness on part of patients are responsible for high MMR. Although APH cannot be prevented ,the maternal and perinatal morbidity and mortality associated with APH can be reduced significantly by aggressive management.(4)

Presently increase in use of ultrasound for placental localization and to diagnose abruption placenta, improved obstetrical and anaesthetic facilities, increase in use of blood and its products to correct anaemia and advanced neonatal care facilities to make increased chances of survival of a preterm infant, all totally have played important role in decreasing perinatal as well as maternal morbidity and mortality. (5)

Causes of antepartum haemorrhage include placenta praevia, placental abruption, vasa praevia, rupture of marginal sinus, local lesions in the vulva, vagina or cervix and unclassified. Prompt diagnosis, resuscitation and management are essential to save the mother and fetus.

Various extra placental causes are cervical polyp, carcinoma cervix, varicose veins, local trauma, condylomata, cervical erosion etc. forming another one third.

Maternal mortality due to APH has significantly decreased in developed countries to about 6/100000 live births due to better obstetrical care. In India, maternal mortality is still very high and is 4.08/1000 live births. (6) In the day to day practice, an obstetrician has to tackle life threatening condition of APH and take a timely judicious decision of terminating pregnancy, keeping in mind the welfare of both the mother and the fetus without exposing either of them to undue risk.

II. Aims And Objectives

1.To study the factors associated with antepartum hemorrhage.
2.To study the maternal morbidity and mortality due to APH.
3.To study the perinatal outcome due to APH.

III. Materials And Methods

My dissertation topic was study on antepartum hemorrhage and its maternal and perinatal outcome in Chengalpattu medical college and hospital during the study period January 2018 to January 2019 for 12months including 100 pregnant women who presented to the obstetric OPD and casualty with antepartum hemorrhage.

IV. Methodology

(i)Meticulous proper history taking .
(ii)A methodical clinical examination.
(iii)Required investigation
(iv)Providing appropriate treatment

INCLUSION CRITERIA

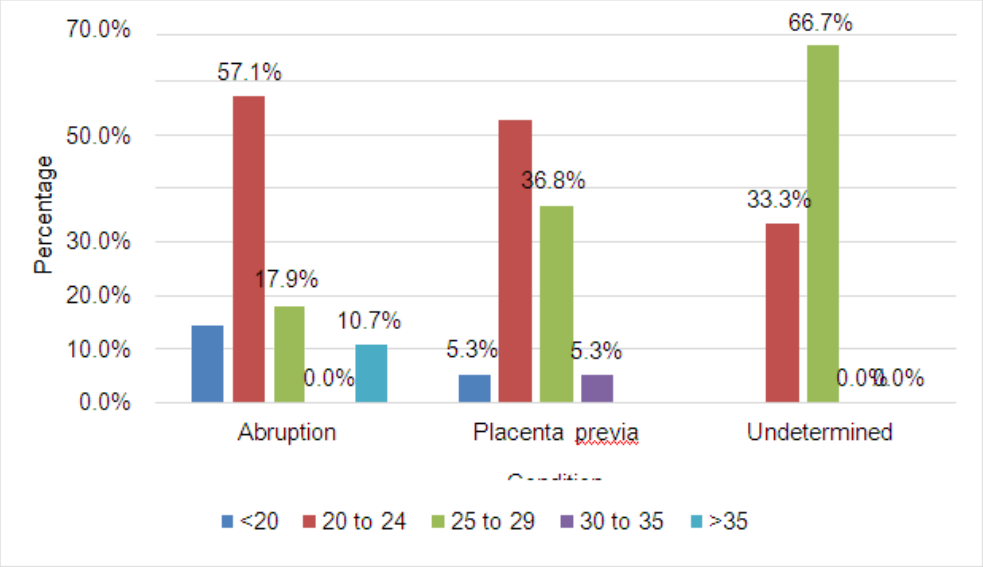
1.Patients with bleeding per vaginum after 28 weeks
2.All cases of hemorrhage in late pregnancy were grouped as placenta previa, abruption placenta, local causes or unknown.
3.The diagnosis of all cases was made on the basis of history, clinical examination and a few cases by USG**.**

EXCLUSION CRTERIA
1.All cases of APH with gestational age less than 28 weeks.
2.Patients suffering from any other bleeding disorder.
3.Bleeding from a source other than uterus.

V. Result

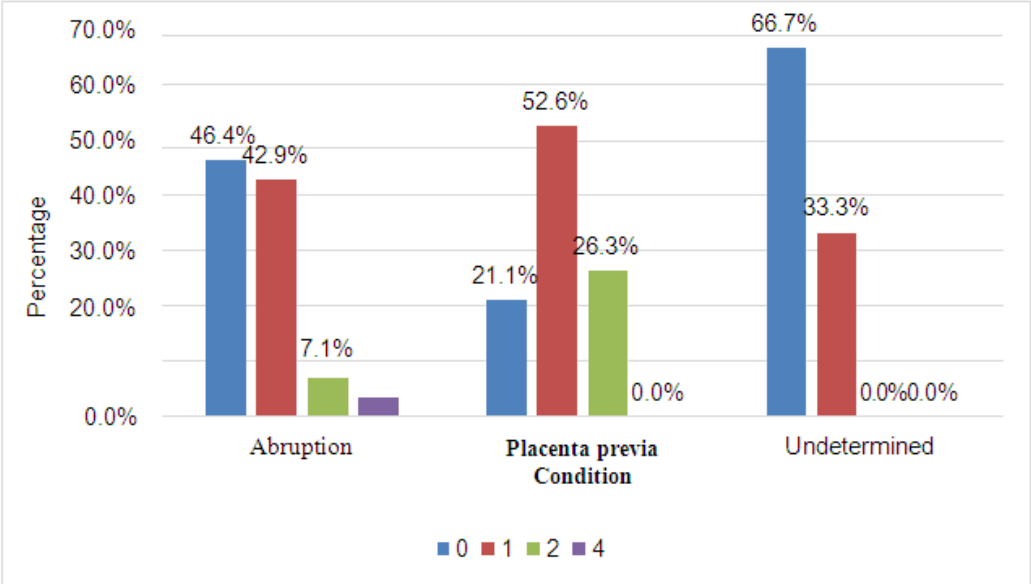
In this study we followed 100 patients who had undergone antepartum haemorrhage, on various indications. These patients are selected from all consenting female patients who presented with APH in the antenatal OPD and emergency casualty in the departments of Obstetrics and Gynecology from the period of June 2018 to June 2019, after meticulous history taking and fulfilling the inclusion and exclusion criteria's mentioned in this study proposal.

Figure 1: Cluster bar chart of comparison of age group across condition (N=100)



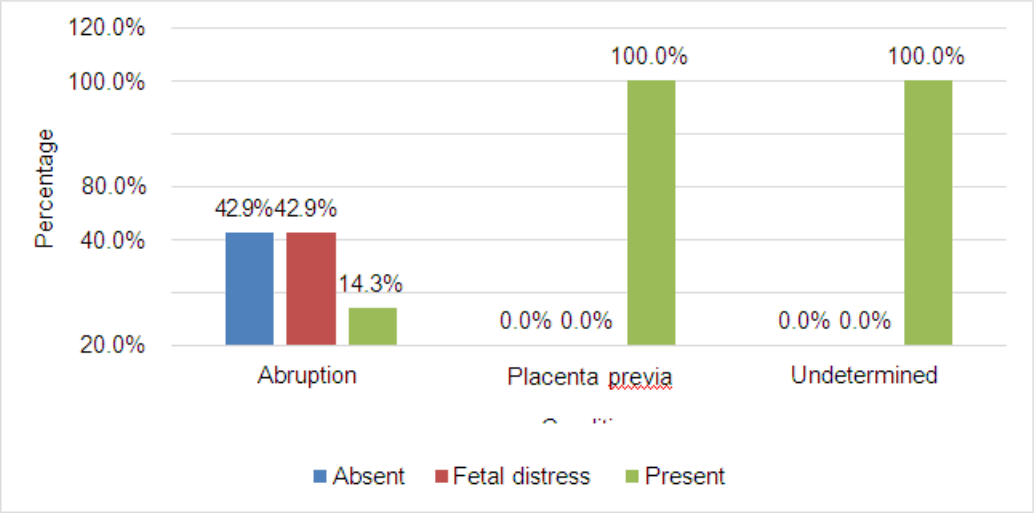
Below 30 age group of patient more in this study. There was less number of patients in undetermined category. Compare with abruption, placenta and undetermined was statistically significant p value less than 0.05.

Figure 2: Cluster bar chart of comparison of parity across condition (N=100)



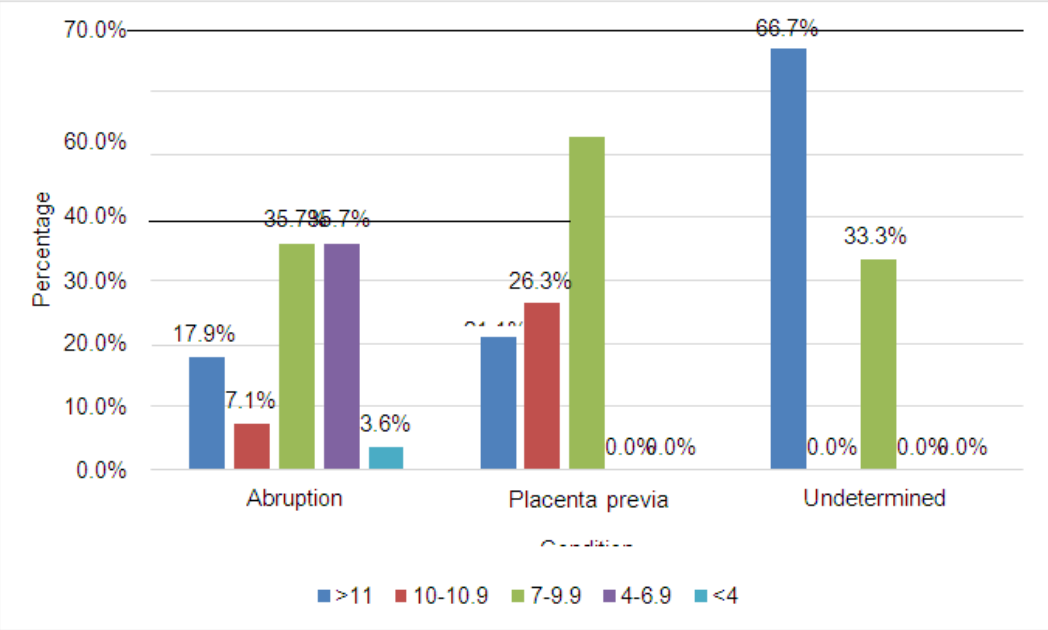
Most of the cases in parity across conditions were under 0-2 score which was high in abruption and placenta groups than undetermined was statistically significant.
Mostly gestational age period was high in abruption and placenta previa group than undetermined group because number of cases less in undetermined. Statistically highly significant.

Figure 3: Cluster bar chart of comparison of fetal heart rate across condition (N=100)



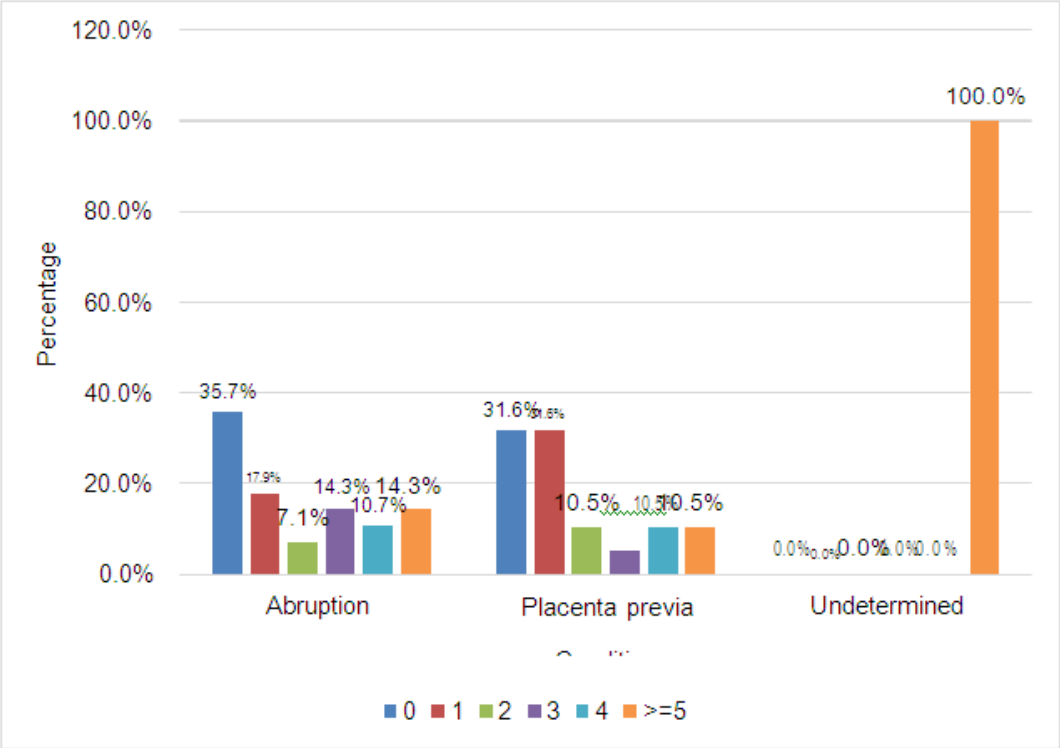
Fetal heart rate there is no absence in placenta previa and undetermined group. Mostly absent in abruption group nearly 24 (42.86%). Zero present in the group so not able to analysis statistically significant or not.

Figure 4: Cluster bar chart of comparison of hb in gm across condition (N=100)



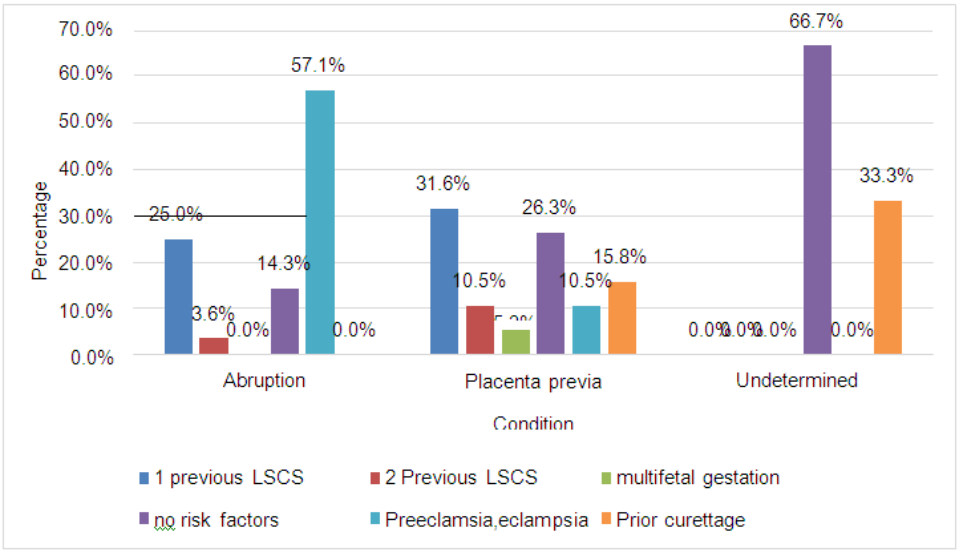
Among the cases Hb were seen mostly between >11-9.9 in Gm. In 4-6.9 gm only in abruption category cases were seen which was highly significant.

Figure 5: Cluster bar chart of comparison of no of blood transfusions(unit) across condition (N=96)



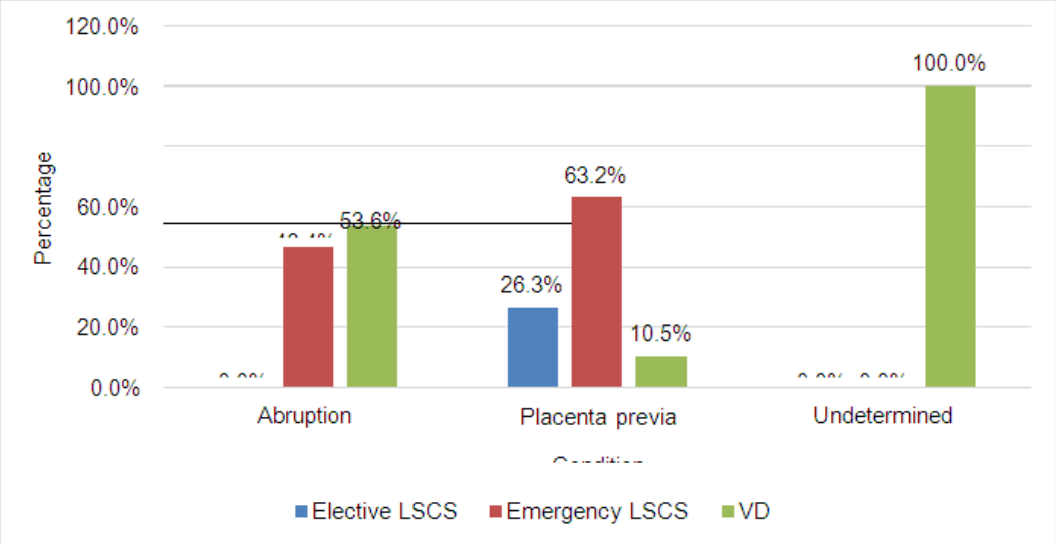
Blood transfusions were high in abruption and placenta previa. There was no blood transfusion in undetermined category which was not statistically significant.

Figure 6: Cluster bar chart of comparison of risk factors across condition (N=100)



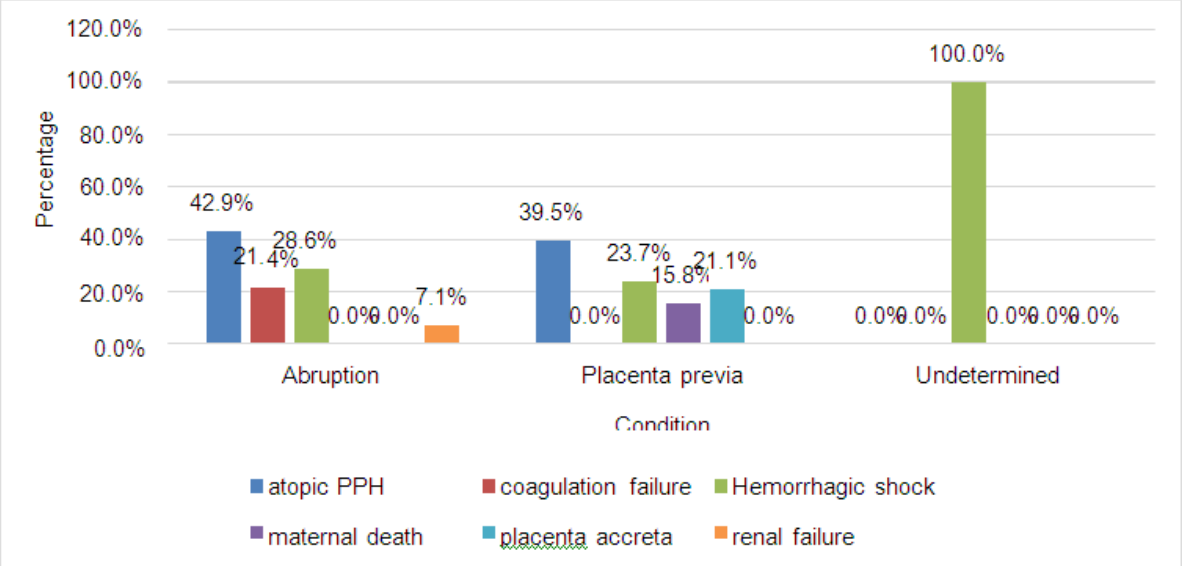
26 (26%) in 1 previous Lscs, 6 (6%) in2 previous Lscs, 2 (2%) in multifetal Gestation only in placenta previa, 22 (22%) in no risk Factors, 36 (36%) were in Preeclamsia, Eclampsia were high in abruption nearly 32 (57.14%) and absent in undetermined category and 8 (8%) in Prior Curettage which was high in placenta previa nearly 6 (6%), absence in abruption cases. statistically was highly significant p value <0.001.

Figure 7: Cluster bar chart of comparison of mode of delivery across condition (N=100)



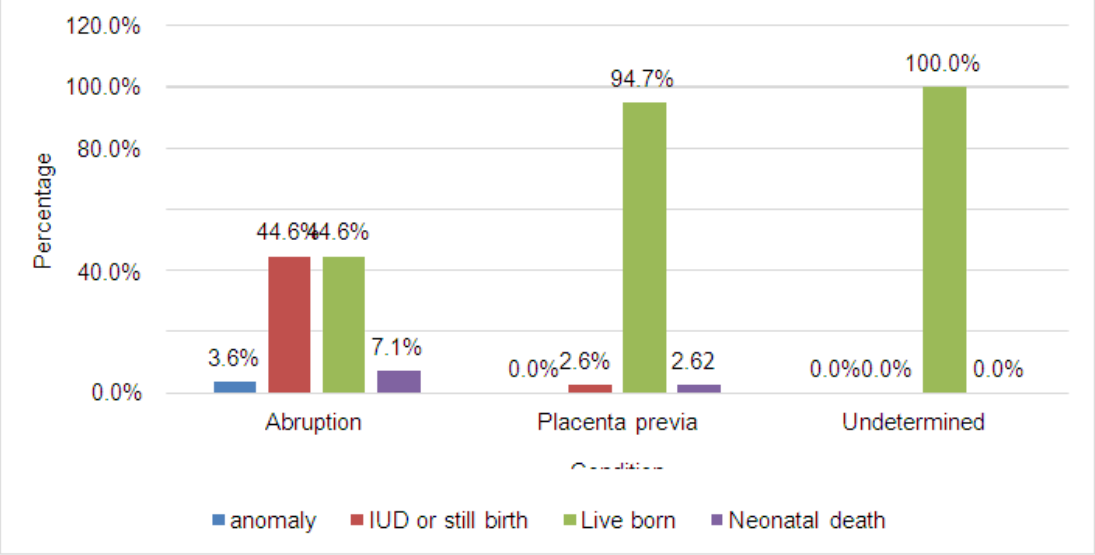
In mode of delivery mostly in 50 (50%) were in emergency caesareans cases. Planned Caesarean (Elective Lscs) only in placenta previa. vaginal delivery seen mostly in abruption cases but less in placenta previa. All the cases in undetermined category was vaginal delivery

Figure 8: Cluster bar chart of comparison of complication across condition (N=100)



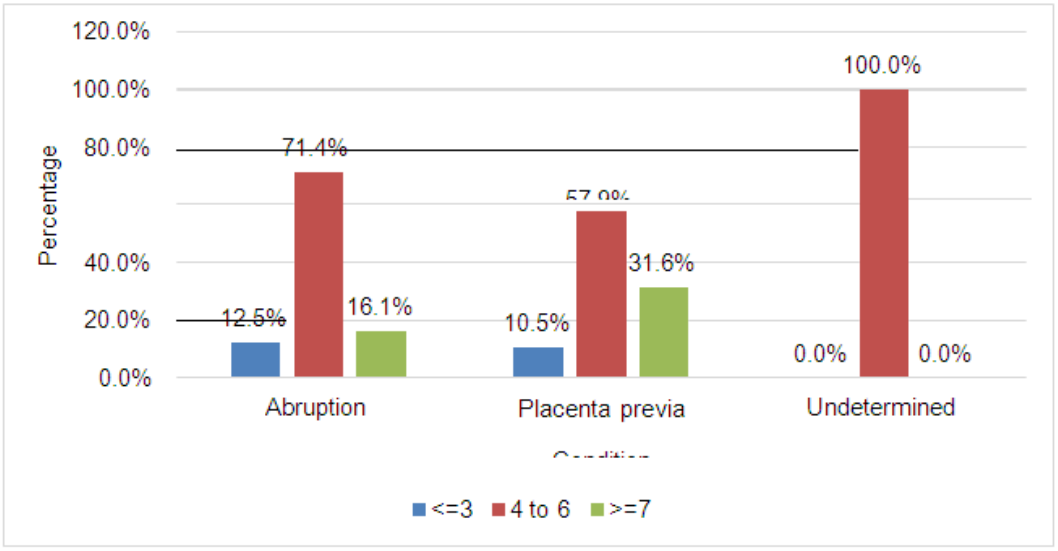
Among the 100 cases complication were seen mostly in abruption group i.e atopic Pph, coagulation Failure and hemorrhagic Shock. In undetermined category only in hemorrhagic shock. All the complications were atonic PPH, hemorrhagic shock, maternal death, placenta accrete, renal failure in placenta previa except coagulation profile.

Figure 9: Cluster bar chart of comparison of perinatal outcomes across condition (N=100)



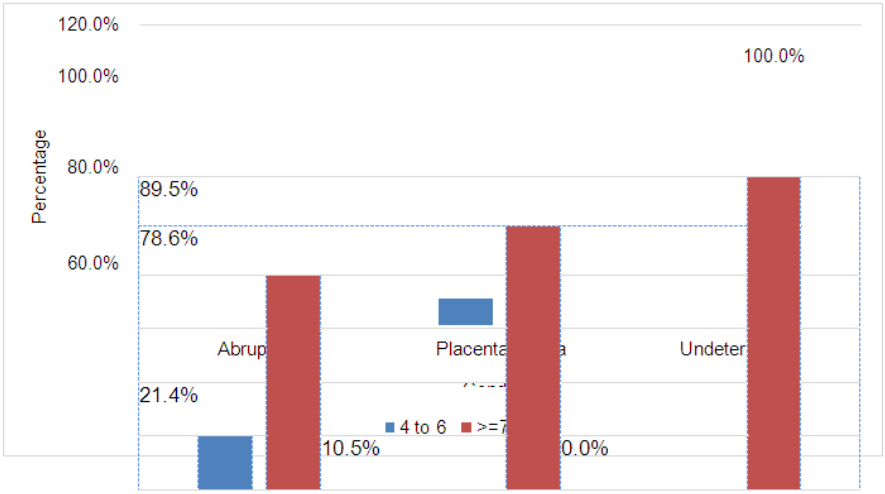
2 (2%) Anomaly were seen only in abruption category. Iud Or Still Birth were mostly in abruption nearly 25 (25%),
very less in 1(1%) in placenta previa. Mostly 61(61%) cases were live born. 4 (4%) neonatal death were seen in abruption and 1(1%) in placenta previa. in undetermined all cases were live born.

Figure 10: Cluster bar chart of comparison of apgar at 1 min across condition (N=100)



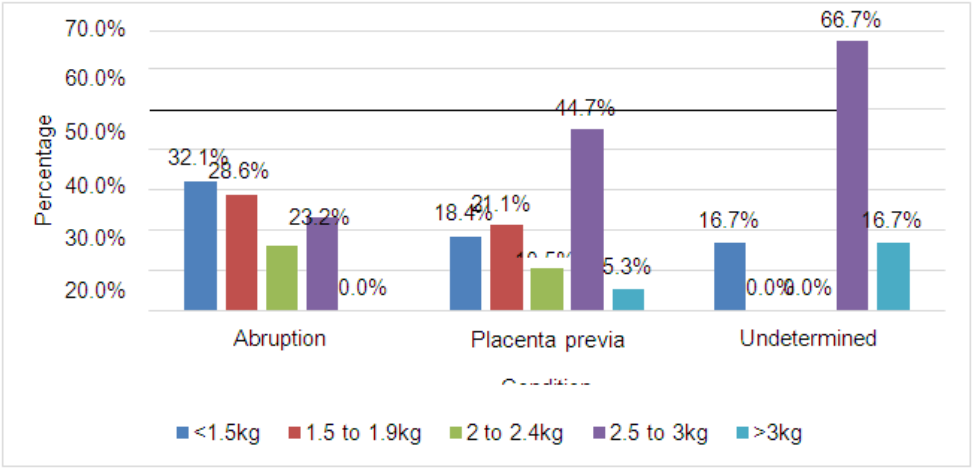
Apgar At 1 Min were mostly between 4 to 6 in all the three groups and was not statistically significant in this study.

Figure 11: Cluster bar chart of comparison of apgar at 5 min across condition (N=100)



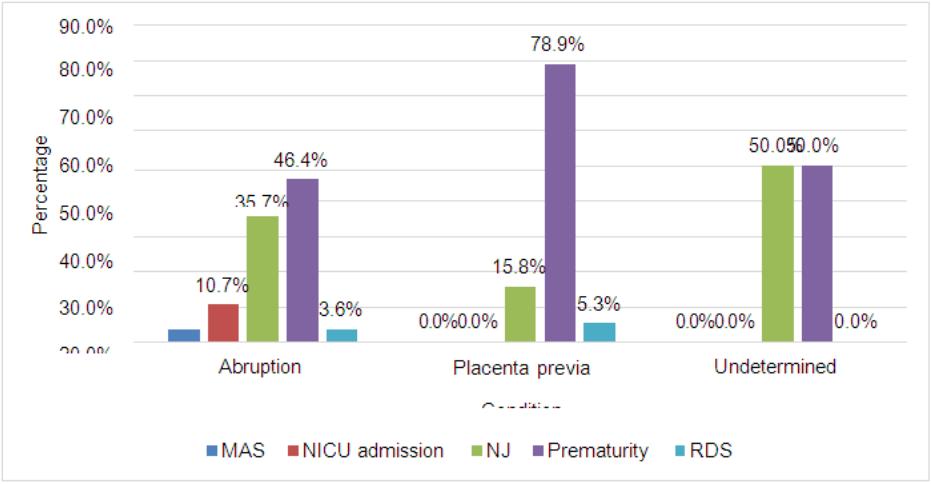
Apgar At 5 min were mostly between >=7 in all the three groups and was not statistically significant in this study.

Figure 12: Cluster bar chart of comparison of birth weight across condition (N=100)



Most of the cases, the birth weight were seen between 1.5 to 3 Kg. Less than 1.5 Kg birth weight were seen mostly in abruption and placenta previa which was significant.

Figure 13: Cluster bar chart of comparison of complication across condition (N=100)



Among the different complications, most of the cases showed NJ and prematurity of the fetus in all the groups.

VI. Conclusion

From the present study it can be concluded that antepartum haemorrhage is still a leading cause of maternal morbidity and mortality in our country. The commonest cause of antepartum haemorrhage was placental abruption followed by placenta previa. The commonest mode of delivery was caesarean section. In abruption group maternal morbidity was high in terms of shock, DIC and renal failure and fetal morbidity and mortality was also high when compared to placenta praevia group.

This was because most of the cases in abruption group presented late and already had complications at the time of admission, while in placenta previa group diagnosis was made early by ultrasound before they became symptomatic clinically. So they were carefully managed.

Though maternal mortality has been reduced with modern management of antepartum haemorrhage, perinatal mortality was high because of prematurity. Thus the maternal and fetal mortality and morbidity can be lowered by routine ante-natal check-up, timely referral, timely C-section, liberal blood transfusion, correction of anaemia and wider acceptance of expectant line of management in tertiary centre with availability of blood transfusion and good neonatal intensive care unit.

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