Study of Antepartum Haemorrhage and its Maternal and Perinatal Outcome.

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ABSTRACT

Background: The Objectives of the present study are to assess the risk factors associated with antepartum haemorrhage (APH), maternal morbidity & mortality due to APH and its perinatal outcome in APH.

Methods: This study was an analytical retrospective study conducted at NIMS University and Medical College, Jaipur over the duration of one year from July 2013-July 2014 over 100 cases of APH admitted in the hospital. Results: Among the 100 cases of APH the types observed were, placenta praevia: 39, abruptio placenta: 31, indeterminate causes: 25 and extra placental causes: 5. Maternal mortality out of 39 cases of placenta praevia was 1 and out of 31 cases of abruptio placenta was again 1. Perinatal mortality was 10% in placenta praevia and 19% in abruptio placenta. Conclusion: APH is a major cause of maternal and perinatal mortality & morbidity, which can be prevented, by early registration, regular antenatal care, early detection of high-risk cases, early referral, better blood bank and OT facilities, improved intra-operative and postoperative care and better neonatal intensive care.

Keywords: Abruptio placenta, Antepartum haemorrhage, Maternal morbidity, Placenta praevia.

INTRODUCTION

Obstetric haemorrhage is one of the leading causes of maternal deaths and is also a major cause of perinatal morbidity and mortality. Obstetric haemorrhage is responsible for 22-25% of maternal mortality. Among Obstetric, haemorrhage cases APH is the most common cause of maternal mortality and morbidity accounting for half of the deaths. APH is bleeding per vaginum after 28 weeks of gestation till delivery of the baby. APH occurs with/without warning signs. The incidence is 3% among the hospital deliveries.

MATERIALS AND METHODS

The material of this study comprises 100 cases of APH recorded in NIMS University and Medical College, Jaipur admitted during June 2013 to July 2014. Total number of deliveries during this period were 3632. Cases observed in this study as per type are placenta praevia: 39, abruption placenta: 31, indeterminate causes: 25 and local causes: 5.

Inclusion criteria of the cases: cases with complains of bleeding per vaginum after 28 weeks of gestation till delivery of the baby. APH occurs with/without warning signs. The incidence is 3% among the hospital deliveries.

RESULTS

To study: Factors associated with APH. Maternal morbidity and mortality due to APH. Perinatal outcome in APH.

MATERIALS AND METHODS

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Figure 1: Distribution of Cases according to causes of APH
Out of 100 cases of APH, there were 39 cases of placenta praevia giving incidence of 1.073%, 31 cases of abruptio placentae giving incidence of 0.853%, 25 cases of indeterminate causes (0.688%) and 5 cases of local cause [Figure 1]. Therefore, placenta praevia contributed to 39% of the total cases of APH, abruptio placentae 31%, indeterminate causes 25% and local causes 5%.

![Figure 2: Age-wise Distribution of APH Cases (%)](image)

Of the 39 cases of placenta praevia, majority belonged to the age group between 26-35 years, while abruptio placentae was common among the age group 21-30 years [Figure 2].

![Figure 3: Parity-wise Distribution of APH Cases](image)

Placenta praevia is common in multiparty while abruptio placentae was common in lower parity [Figure 3]. Cases of APH were more prevalent among the rural population (i.e. 60%). Among all APH cases, placenta praevia was more prevalent in rural population (i.e. 61.53 %). An Abruptio placenta was equally prevalent in urban (48.3%) and rural population (51.6%). APH Cases in urban population were around 35% [Figure 4]. APH cases are seen more among the unbooked and unregistered cases. The percentage of unbooked cases was higher i.e. 63% as compared to booked cases i.e. 32% [Figure 5].
Figure 4: Distribution of Cases of APH according to Urban/Rural Area

Figure 5: Distribution of Cases of APH according to Booked/Unbooked Cases

Figure 6: Distribution of Cases According to Socio-Economic Status (Kuppuswamy Prasad's Socio-Economic Classification 2013)
Maximum number of cases of APH belonged to class 4 and class 5 of Modified Kuppuswamy and Prasad classification of socioeconomic status of 2013 [Figure 6].

Figure 7: Distribution of cases according to gestational age at the time of admission

It was observed that placenta praevia is more common during early third trimester (28-30 weeks) whereas, abruptio placentae dominates during the later part of the third trimester [Figure 7].

Figure 8: Distribution of Cases of APH with Hypertension

Hypertension was observed in more cases of abruptio placentae as compared to placenta praevia [Figure 8]. Neonatal deaths, Still births and IUDs were more commonly observed in abruptio placentae in comparison to placenta praevia [Figure 9].
11% perinatal mortality rate was observed among total cases of APH. Out of those, more cases of perinatal mortality were seen among the patients with abruptio placenta than placenta praevia [Figure 10].

![Figure 10: Perinatal Mortality in Cases of APH (%)](image)

Out of 39 cases of placenta praevia, 1 (2.56%) patient died of severe haemorrhage and hypovolemic shock. There was 1 death (3.22%) out of 31 patients of abruptio placentae. The cause of death was uncontrolled PPH leading to coagulation disorder [Figure 11].

![Figure 11: Maternal Mortality in APH (%)](image)

**DISCUSSION**

In the present study, incidence of APH is 2.75 %, which is quite in accordance with the lower normal range of 2.5% to 3.8% quoted by other colleagues. As per previous studies, in all cases presenting with APH, abruptio placentae was more common (25% to 66%), placenta praevia (18% to 46%) and 25% were indeterminate causes of APH. In this study, it is given that abortion placentae is 31%, placenta praevia 39%, indeterminate cause 25% and local cause 5%.

The age distribution revealed that 50% of abruptio placentae cases were aged 21 -25 years were primi/low parity while 40% of placenta praevia cases aged 26 – 30 years with multiparity, which is similar to Arora et al. 2001. Majority of APH cases belong to rural population: abruptio placentae cases comprises 51.61% of rural population and 48% cases of urban population and placenta praevia was common in rural population (61.53%) urban (38.6%). Likewise percentage of unbooked cases was higher in placenta praevia group (71.79%) than abruptio placentae group (64.51%). APH cases mostly belonged to low socioeconomic status (classes 4 & 5 of Kuppuswamy Prasad’s classification 2013).

In present study, moderate hypertension was observed in 32.25% cases of abruptio placentae. Of all cases of APH, 5 cases had 1 previous caesarean section and 2 cases had 2 previous caesarean section. Foetal malpresentations were seen in 25% cases of APH. Perinatal outcome as IUD (6.45%), still births (9.67%), neonatal deaths (3.22%) was more in abruptio placentae as compared to placenta praevia. Overall, IUD (2.56%), still births (5.12%) and neonatal deaths (2.56%) observed are similar to Arora et al., 2001. Perinatal mortality in this study was 19.35% in abruptio placentae as compared to Nawrorji Wadia Hospital Mumbai (40%) in 2007. Maternal mortality was 3.2% in
Abruptio placentae and 2.56% in placenta praevia. In placenta praevia, major mode of delivery was caesarean section (96%).

CONCLUSION

The results of this study were found in good agreement with previous studies. It is also concluded that APH is a major cause of maternal and perinatal mortality & morbidity, which can be prevented, by early registration, regular antenatal care, early detection of high-risk cases, early referral, better blood bank and OT facilities, improved intra-operative and postoperative care and better neonatal intensive care.

REFERENCES


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