Research Article

Effect of APH on mode of delivery

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Abstract

Introduction: Antepartum hemorrhage (APH) is a grave obstetrical emergency and is a leading cause of maternal and perinatal mortality and morbidity. Various authors recommend various mode of delivery in APH. **Aims and Objectives:** to study the effect of antepartum hemorrhage on various mode of delivery. **Materials and Method:** Present prospective study was conducted among the pregnant attending ANC OPD. Cases of antepartum hemorrhage were identified and followed up to the delivery. Various modes of delivery and outcomes were studied. **Results**: Out of total 66 cases, 45 were of abruption placentae and 14 were of placenta prevea. In placenta prevea 85.7% delivered by cesarean section. Whereas in abruption placentae 66.6% delivered by ARM and oxytocin. Perinatal mortality was observed maximum in low birth weight babies. **Conclusion:** most common mode of delivery in case of placenta prevea was ceasearn section and in case of abruption placeta was ARM and oxyticin.

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INTRODUCTION

Antepartum hemorrhage (APH) is a grave obstetrical emergency and is a leading cause of maternal and perinatal mortality and morbidity. APH is defined as hemorrhage from the genital tract after 20 weeks of gestation but before the delivery of the baby. It complicates about 2-5% of all the pregnancies[1].Probably it was Louis Burgoeis who first recognize this condition in 1609. Then Mauricau Puzos and other worker described such isolated cases in the early half of 18th century. In 1775 Edward Rigby first made distinction between premature separations of normally implanted from that of low lying placenta. The former was termed as accidental hemorrhage, and the later non-preventable haemorrhage.[2]APH can be due to placenta praevia, abruption placentae, indeterminate cause or local causes of genital tract. Placenta previa refers to the condition when the placenta is situated wholly or partially in the lower uterine segment and accounts for one third of all cases of APH [3].An Abruptio placenta is the condition whenever bleeding occurs due to premature separation of normally situated placenta[4]. If the placenta previa is a minor type (Type I, Type II, anterior) artificial rupture of the membranes followed by oxytocin stimulation is done with the onset of labour pain and descent of presenting part bleeding is controlled by compression over the placenta. If bleeding is still not controlled caesarean section is done.Arhus Bill (1927) advocated caesarean section and blood transfusion before caesarean. Since then maternal and perinatal outcome has improved significantly. In fact caesarean section can be done in all types of placenta previa even when the foetus is dead. Caesarean section is necessary to control the haemorrhage quickly and to save the life of the mother. [5]Macafee and Johnson (1945) introduced the expectant line of management when the placenta previa was detected before maturityof the fetus. They have shown the main cause of perinatal mortality in placenta previa is prematurity and adopting this line of expectant treatment, they improved the perinatal outcome without increasing maternal mortality. Johnson showed that by waiting for weeks and after resuscitation when the maternal condition

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is improved, caesarean section can be done safely. The incidence of caesarean section was 53%in his first series with a fetal wastage of 30% and caesarean section rate was 42% with fetal wastage of 14.7% in the second series. In about 37% of cases treated conservatively pregnancy was extended for a period ranging from 2 to 10 weeks. An aggressive form of conservative treatment was introduction in 1980. In these cases drugs were used to inhibit premature labour .a 50% reduction of perinatal mortality with this regime has been reported.[6] Macafee, Miller and Harley (1945-1960) in Belfast treated 70.6% of cases of placenta previa with caesarean section and reported 2 maternal deaths and 14.9% fetal loss. In N Wadia Hospital, Bombay (1986) caesarean section was done in 91.66%of cases. Macafee (1960) and Stallworthy (1957) suggested that type of uterine incision should be according to the position of the placenta, condition of the mother and baby. Some complication may be encountered during caesarean section like uncontrolled haemorrhage. Placenta, accrete which may need caesarean hysterectomy. Now a day's lower segment caesarean section is operation of choice.[7]

AIMS AND OBJECTIVE

To study the effect of ante partum hemorrhage on various mode of delivery.

MATERIAL AND METHODS

Study Design

Present prospective study was conducted in PVPGH, Sangli to study the various outcome of pregnancy in ante partum hemorrhage.

Following Criteria was used for selection of cases

- All cases of bleeding per vaginum after 28 weeks of the gestation with the clinical symptoms and signs suggestive of ante partum hemorrhage.
- Antepartum hemorrhage cases without bleeding per vaginum but diagnosis of abruptio placenta clinically suspected followed by sonographic confirmation of concealed abruptio placentae.

Only confirmed cases of abruption placentae and placenta previa were enrolled in the study. Detailed history was recorded on a prestructured and pretested proforma at the time of enrollment. It includes age, registration status, parity, gestational age, onset, amount and nature of bleeding. Associated complaint of abdominal pain and its severity, leaking per vaginum, decreased fetal movement, confusion, giddiness, and palpitation, pallor were also noted down. Details of delivery, its outcome and any similar episode in previous pregnancy and abortion or PIH or chronic hypertension or trauma in present pregnancy were also inquired and noted. All the women were followed till the termination of pregnancy and strict fetal and maternal well being was monitored. On admission following points were noted, general condition, vital parameter, pallor and its severity, presence or absence of hypovolaemic chock. Various lab investigations as per requirement were performed. All the women in the study were managed by using standard protocol. Perinatal outcome was measured by calculation total live births, still birth and neonatal deaths. Various mode of delivery such as spontaneous delivery, ARM or cesarean section required was noted. And it was compared with the perinatal outcome.

RESULTS

There were 78 maternal deaths during the period from January 2007 to January 2012 in the hospital. Hemorrhage was the leading cause of maternal death accounting for 26.92% followed by sepsis 23.08%. Pre-eclampsia contributed to 20.51% of maternal death. Anemia was responsible for 17.95% deaths (Table 1). The age group in which most (74.36%) maternal deaths occurred was 21-30 years group. This was followed by <20 years (15.38%) and >30 years age groups (10.26%) (Table 2). When the parity of the women was compared, it was seen that most maternal deaths was in multi-para accounting for more than half the maternal deaths (56.41%). (Table 3) The women who came to our hospital, most of them were referred. 35.90% were delivered in our hospital (Table 4). Most of the women (62.5 %) died within 24 hours of admission followed by many women dying in the next 24-48 hours being 12.5%. Few women died after 48 hours accounting for 24.99 %.

Table 1: Distribution of women according to type of APH

Type of APH	No. of cases	Percentage (%)
Abruptio placenta	45	68.18%
Palcenta previa	21	31.81%
Total	**66**	**100%**

It was observed that there were total 66 cases of ante partum hemorrhage in the present study. Out of that 45 (68.18%) cases were of abruption placentae and 21 (31.81%) were of placenta previa.

Table 2: Correlation of mode of delivery with types of APH

Method of delivery	Placenta previa	Abruptio placentae
Spontaneous	4.7%	2.2%
ARMand oxytocin	9.5%	66.6%
Caesarean	85.7%	31.1%
Perinatal mortality rate	14.28%	66.67%

Majority of cases of placentae previa were delivered by caesarean section. By expected line of management perinatal mortality was decreased (14.28%). In majority of cases of abruptio placentae responded to ARM with

oxytocin stimulation (66.6%) caesarean section were done in 31.10 % cases.

Table 3: Various Perinatal outcome

Sr. No.	Condition of newborn		No of cases	Percentage (%)
1	Live born	Term	19	28.7
		preterm	17	21.21
2	Fresh stillbirth		28	42.42
3	Macerated stillbirth		2	3.08
4	Neonatal death		3	4.54

Outcome of pregnancy was also studied in the present study. It was observed that there were total 36 live births. Out of which 19 were full term and 17 were preterm. 3 neonatal deaths were observed in the all live births. Still birth was observed in 30cases (fresh still birth in 28 cases and macerated in 2 cases).

Table 4: Correlation of birth weight of newborn and perinatal outcome

Sr. No.	Weight (kg)	No. of cases	Perinatal mortality
1	<1.5	18 (27.27%)	17 (51.52)
2	1.5-2.5	37 (56.06%)	14 (42.42)
3	>2.5	11 (16.67%)	2 (6.06)

It was observed that perinatal mortality increases as birth weight decreases. Majority of the cases of perinatal mortality (51.52%) were less than 1.5 kg birth weight.

DISCUSSION

In the present study we studied total 66 cases of ante partum hemorrhage, out of which 45 (68.18%) cases were of abruption placentae and 21 (31.82%) were of placenta previa. In study conducted by Lele *et al*[8] and Bhatt *et al* [9] incidence of placenta previa was 42.9% and 31.8% respectively which was similar to findings of our study. Whereas Khosla *et al*[10], Palanippan *et al*[11] and Raksha *et al*[12] studied incidence of abruptio placentae in their study and it was 60%, 60.5% and 53.55% respectively which was nearly same to the finding in our study. With improvement in operative technique, improved facilities of anesthesia, modern diagnostic methods, better post operative care, the risk associated with operative delivery has parallel that of vaginal delivery. In fact in most cases of APH, early operative delivery has proved more beneficial than vaginal delivery. In our study in placenta previa 85.7% patient delivered by caesarean section, while rest by ARM with Pitocin. Above finding correlates with the findings reported by Menon *et al*[13] and Bhatt *et al*[9]. LSCS cases were more because majority of patient were belonged to major degree placenta previa. Some patient was in shock, for which expectant line of management was not feasible. Because of early diagnosis of placenta previa in second trimester by ultrasound, advising bed rest arranging blood transfusion, conduction delivery by caesarean section in tertiary centre and by good NICU care, perinatal mortality has been decreased. In abruptio placentae now a day's most of author advocate liberal use of caesarean section for foetal interest. At our institute we do not perform caesarean section for foetal interest, unless maturity of fetus is at least 32-34 weeks. In some patient caesarean section was performed in spite of intrauterine fetal death, thus faster termination of pregnancy helps us to avoid further complication. Two patients landed up in DIC in these cases caesarean section was performed as there was no further progress in the labour and caesarean section was the only way to evacuate the uterus. In current study caesarean section were done in 31.1% of patient while most of the patient responded to augmentation of labour with ARM with Pitocin. These finding were in correlates with the findings reported by Ashar *et al*[14], Das *et al*[15], palaniappan *et al*[11] and khosla *et al*[10]. The incidence of caesarean section quoted by foreign authors is much higher. Their patient report at earlier stages when the foetus is still alive and they have good facilities for premature infant. At our set up patients come to hospital quite late, when there is already an intrauterine death and even if the foetus is alive, prematurity is the major setback to perform caesarean section. In modern obstetrics, caesarean section is performed inspite of dead foetus. It is thought that slightest delay will increase maternal mortality and morbidity. In the current study there were 36 live born babies of which 17 were premature. There were 33 (50%) perinatal losses of which 3(4.5%) were neonatal death, 28(42.42%) were fresh stillbirths and 2(3.08%) were macerated stillbirth. The incidence of still birth reported in our study was similar to reported by Lele *et al*[8] and Khosla *et al*[10]. Salihu *et al*[16] (2003) found that neonatal mortality rate was three fold higher in pregnancies complicated by placenta previa primarily because of increased preterm birth. In our studies preterm was the common cause of neonatal death. Ananth *et al*[17] (2003b) reported a comparably increased risk of neonatal death even for those fetuses delivered at term. Some of this risk appears related to fetal growth restriction and limited prenatal care. Most of stillbirths were less than 1.5 kg as well as neonatal death were more in <1.5kg. In the study 27.27% of babies were <1.5kg while only 16.67% of babies were more than 2.5kg. High mortality is observed in the Indian series for which ignorance, negligence and late referral are mainly responsible. Neonatal mortality is further increased by prematurity, infection, and respiratory distress syndrome. Ananth *et al*[18] (2001a) also found that most of the association between placenta previa and low birth weight was primarily due to preterm birth and to lesser extend growth impairment.

In this study on admission fetal heart sounds were absent in 30 (45.45) patients. So it is obvious to have such high perinatal mortality rate. There were 3 neonatal deaths. All neonatal deaths occurred because of prematurity. Purandare[14] described a term "preventable foetal loss" when patients come to hospital with fetal heart sound present but which are later on lost during the course of labor or in the neonatal period. So if the patients report earlier much more babies can be saved. In our study one baby had spinabifida, crane *et al* (1999) were the first to confirm that chances of congenital malformation are increased with a previa.

CONCLUSION

Most common mode of delivery in case of placenta prevea was ceasearn section and in case of abruption placeta was ARM and oxyticin.

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