Characteristics of patients of ante-partum hemorrhage at a tertiary care centre

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Abstract

Introduction: Antepartumhaemorrhage (APH) defined as bleeding from or into the genital tract after 24 weeks of gestation but before the birth of baby. The causes of APH are placenta previa, abruption placentae, local causes and vasa previa.
Aims and Objectives: To study the demographic profile and maternal and perinatal outcome in antepartum haemorrhage.
Material and Methods: It is a retrospective study done at a tertiary care centre in Haryana over a period of seven months. Case files of 140 patients of antepartum haemorrhage were studied for various parameters and analyzed.
Results: Total deliveries were 6227 during the study period, out of which abruption placentae cases were 51.43% and placenta previa were 48.57%. Three maternal death were reported due to abruption placentae and one was due to placenta previa. Perinatal mortality was 68.96% due to abruptio placentae and 16.96% was due to placenta praevia.
Conclusion: In antepartum haemorrhage, both mother and foetus are at risk. Proper antenatal care, early diagnosis, early referral and timely management can improve the maternal and perinatal outcome.

Keywords: Booked, Unbooked, Antepartum haemorrhage, Placenta previa, Abruption placentae

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Introduction

Ante-partum hemorrhage (APH) is defined as bleeding from or into genital tract after 24 weeks of gestation but before the birth of baby. Its incidence is 3-5%.[1] The causes of APH are placenta praevia, abruption placentae, local causes and vasa previa. Placenta previa accounts for one third of the cases of APH.[2] In placenta previa, placenta is implanted in the lower uterine segment and according to the placental attachment, it is of type I to type IV. The risk factors of placenta previa are increasing maternal age and parity, previous cesarean section and multiple pregnancy.[3] In abruptio placentae there is premature separation of normally situated placenta and the risk factors include advance maternal age, high parity, low socioeconomic condition, folic acid deficiency, smoking, cocaine abuse, trauma and pregnancy induced hypertension. Maternal and perinatal morbidity is increased and there are increased rate of cesarean section, gross congenital malformation of babies, prematurity, fetal distress and intra-uterine in patients of APH. There is also increase in maternal and perinatal mortality due to complications of APH like hemorrhage, shock, coagulation disorders, oligouria, anuria, post-partum hemorrhage, puerperal sepsis, prematurity and fetal distres.[4] Early diagnosis of APH and timely management improves maternal and perinatal outcome.

Aims and Objectives

To study the socio-demographic profile and maternal and perinatal outcome in antepartum hemorrhage.

Material and Methods

It is a retrospective study carried out in the department of obstetrics and gynecology at post graduate institute of medical sciences, Rohtak, Haryana over a period of seven months. The medical case records of the patients admitted with antepartum hemorrhage were studied regarding various parameters like age of the patient, parity, period of gestation, booked/ unbooked status, residence, education, type of APH, mode of delivery, indication of cesarean sections, fetal condition, apgar score and weight of babies. Any maternal and perinatal mortality were also noted. Data was compiled and analyzed.

Results

Results are shown in Table 1 to 6. There were a total of 140 patients during the study period. Most of the patients were unbooked, belonged to rural background, para two or more and in the age group of 21-30 years (Table 1). A total of 19 patients had malpresentations out of which 18 were breech and one was transverse lie. Only three patients with breech presentation were more than 38 weeks of period of gestation while majority of the patients were preterm. A total of 79 patients were delivered by vaginal route and 60 by cesarean section while one had hysterotomy. Indications of cesarean section (LSCS) are shown in Table 3. The hysterotomy was done at 22 weeks for

type IV place. There were a total of 56 patients with retro placental (RP) clot (Table-2) out of which 40 (71.45%) delivered IUD babies. Perinatal mortality was 100% in patients with RP clot of >1 litre. There were a total of 23 cases of type IV placenta previa out of which 11 had IUD babies and most of these were preterm. Cesarean had to be done in four cases with intrauterine death because of poor general condition and non-progress of labour. All the four patients with dead babies had RPC >500cc and three patients developed disseminated intra vascular coagulation (DIC) and one patient expired.

Out of 140 patients in present study, seven patients developed disseminated intravascular coagulation and two patients expired due to DIC. There were a total of four maternal deaths, three due of abruption placenta and one due to placenta previa. There were a total of 56 patients with retroplacental clot (Table 2) out of which 40 (71.45%) delivered IUD babies. Perinatal mortality was 100% in patients with RP clot of >1 litre. There were a total of 23 cases of type IV placenta previa out of which 11 had IUD babies and most of these were preterm.

Table 1: Profile of patients with antepartum hemorrhage

Parameter		No of patients	Percentage
Booking status	Booked	46	32.5
	Unbooked	94	67.5
Residence	Rural	107	76.43
	Urban	33	23.57
Age Mean ±SD= 28.32±4.23	<20	15	10.72
	21-30	104	74.29
	31-40	21	15.0
Parity Mean ±SD=1.91±0.65	P0	33	23.57
	P1	52	37.14
	P2 and more	55	39.28
Gestational age at presentation	24-28	36	25.71
	29-34	46	32.86
	35-37	40	28.57
	≥38	18	12.86

Table 2: Distribution of patients as per type of APH

Type of APH		No of patients	Percentage
Placenta previa	Type I	18	12.86
	Type II	11	7.86
	Type III	16	11.43
	Type IV	23	16.43
	Total	**68**	**48.57**
Abruptio placentae	No RPC	16	11.43
	<200ml RPC	10	7.14
	200-500ml RP C	30	21.43
	500-1000ml RPC	9	6.43
	>1000ml RPC	7	5.0
	Total	**72**	**51.43**

RPC - Retroplacental clot

Table 3: Distribution of patients as per indication of cesarean section

Indication of LSCS		No of patients	Percentage
Placenta previa	Type I with fetal distress	1	1.6
	Type II	11	18.33
	Type III	16	26.66
	TypeIV	22	36.66
Abruptio placentae	with fetal distress	3	5.0
	with breech	3	5.0
	With IUD with RP clot>500m l with poor general condition	4	6.67
	Total	60	100

Table 4: Maternal outcome

Maternal complications	No of patients	Percentage
Malpresentations	19	13.57
LSCS	60	42.85
Hysterotomy	1	0.71
Postpartum hemorrhage	44	31.43
DIC	7	5.0
Mortality	4	2.86

Table 5: Perinatal outcome

Outcome of baby		No of babies	Percentage
Apgar score	7-10	66	80.48
	4-6	10	12.19
	<4	6	7.31
Baby weight	3-4kg	9	6.4
	2.5-3kg	30	21.42
	2-2.5kg	42	30
	1.5-2kg	32	22.85
	<1.5kg	27	19.28
Prematurity		122	87.14
Fetal distress		12	8.57
GCMF		1	0.71
IUD		58	41.42
Died in nursery		6	4.28

GCMF- Gross congenital malformation; IUD- Intrauterine death

Table 6: Causes of intrauterine death

Parameter		No of babies	Percentage
Placenta previa TypeIV		11	18.96
Abruptio placentae	RP C (<200)	6	10.34
	RPC(200-500)	18	31.03
	RPC(500-1000)	9	15.51
	RPC(>1000)	7	12.06
GCMF (Anencephaly)		1	1.7
Prematurity		6	10.34
Total		58	100

Discussion

It is a retrospective study carried out in the department of obstetrics and gynaecology at tertiary care centre in Haryana. Total number of deliveries were 6227 and 140 patients were of APH. The incidence of APH is 2.2% which is almost similar to the study by Arora R.[5] (2.5%), while other studies by Bhide GA[6] (1.2%) and Bhandiwad[7] (1.5%) reported a lower incidence. Being a tertiary care center in the present study, unbooked patients were more (67.5%) and the results are comparable with the studies of AroraR[5] (62%), Maurya A[8] (62%) and Bhandiwad[7] (57.5%). Most of the patients (76.43%) belonging to rural background which is comparable to studies by Sarella L K[9] (70.49%) and Maurya A[8] (65%). Majority of the patients (74.29%) in the present study were young and belonged to the age group of 21-30 years and the study of Sarella L K[9] reported 86.88% in age group 20-30 years. Abruptio placentae is seen in 51.43% of patients which is almost comparable to the studies of Khosla[10] (60%) and Arora R[5] (53.35%) while the study of Jaju K et al[2] (68.18%) reported more number of abruption placentae cases than the present study. Placenta previa is seen in 48.57% of the patients as compared with the other studies of Lele et al[11] (42.9%) but, Jaju K[2] (31.82%) reported a lower number of placenta previa cases. Rate of LSCS in present study is 42.85% and, the indications for LSCS were placenta previa in 88.33% which is similar to the studies of Bhandiwad[7] (90%) and Maurya A[8] (94.37%). Malpresentations are seen in 13.57% cases while Maurya[8] (25.34%), and Sarella LK[9] (18%) reported higher incidence of malpresentations than the present study which is due to the fact that Maurya[8] had more number of placenta previa i.e. 71% and Sarella L K[9] included the patients of placenta previa only and more number of

malpresentations are associated with placenta previa. There were four maternal deaths out of 140 patients (Table 4) amounting to maternal mortality of 2.86%. In the present study, maternal mortality is high as most patients reported late with poor general condition due to excessive blood loss. Maternal mortality on account of placenta previa was 1.47% (one patient) and due to abruption placentae is 4.17% (three patients) which is similar to study of Maurya A et al[8]. Postpartum hemorrhage is seen in 44 patients (31.43%) comparable to the results reported by the studies of Sarella LK[9] (27.87%) and Maurya A[8] (21.49%). Seven patients developed DIC (5%) similar to study of Bhandiwad[7] (3%). Perinatal mortality rate in the present study is 45.71%. Perinatal mortality due to abruption placentae is 68.96% and placenta previa accounted for 18.96% similar to the study of Jaju K[2] (66.67% in abruption placentae and 14.28% in placenta previa). Lower perinatal mortality rate is reported in the study of Sarella L K[9] (6.55%) in placenta previa cases and it is noted that majority of the patients in the study were with lesser degree of placenta previa i.e. type I and type II which has less perinatal mortality as compared to type III and type IV. The study of Maurya A[8] reported lower perinatal mortality for both abruption placentae and placenta previa (18.5% and 12.6% respectively) the reasons quoted by him is better neonatal intensive care facility. Perinatal mortality is very high in studies of Sarwar I[12] (67%), Arora R[5] (53.5%) and Bhandiwad[7] (47.7%) in cases of abruption placentae. In present study most of the babies were premature (87.14%) and had birth weight of two kilograms or less (41.13%) and it is comparable to Sarwar I who observed low birth weight in 56% of babies. In nutshell, the present study is almost comparable to other studies in relation to incidence of LSCS, PPH, perinatal mortality and prematurity of babies.

Conclusion

In antepartum hemorrhage mother and foetus both are at risk of various complications like PPH, shock, DIC, prematurity, intra-uterine death. Proper antenatal care, early diagnosis, early referral and timely management can improve maternal and perinatal outcome.

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