Ante Partum Haemorrhage due to Placenta- Previa: An Alarm to Mother and Foetus.

K AHMAD A MALIK W YOUSEF
Department of Gynaecology and Obstetrics, Lady Willingdon Hospital, Lahore
Correspondence to: Dr. Khurram Ahmad

Placenta previa is the major cause of antepartum haemorrhage . It is one of the known cause of foeto maternal mortality especially in the unbooked cases .Pregnant patients of 15-45 years age admitted through OPD/COD during three years from April 1996-1999 were included in the study .Diagnosis was made on the clinical grounds and confirmed by the ultrasonography . Risk factors and the out come was compared in booked & unbooked cases. Results concluded good prognosis in booked cases where problem was detected earlier and monitored vigilantly . In unbooked cases haemorrhage, infection, coexisting pathology and surgical complications caused maternal mortality while prematurity, hypoxia & malpresentation were associated with foetal mortality. In conclusion early diagnosis management & preventing the avoidable causes were suggested i.e., limiting the family to 3 by the age of 30 years and later use of contraceptive methods, admission of the pregnant patient with placenta previa at the gestational age of 34 weeks completed or earlier if any complication arises and this followed by the cesarean section at 37 completed weeks , especially in the cases of central placenta previa, previous cesarean section or coexisting pathology. Education about the antenatal care, health facility for foeto maternal health at hospitals is important, easy & rich availability of the blood for transfusion if required. Surgical facilities in cases with haemorrhage .Bed rest, avoiding trauma & long travelling in high risk cases especially in cases of placenta previa type 3 or 4.
Key words: Ante partum haemorrhage, APH; Out patient department , OPD; Casualty out door , COD.

Bleeding per vaginum after 24 weeks of gestation & before the onset of the labour is termed as antepartum haemorrhage. Placenta previa is one among it's major causes .Conditions in which placenta is abnormally low lying in the lower uterine segment .This is associated with painless per vaginal bleeding .Associated factors were rising maternal age ,increasing parity , multiple pregnancy & history of previous surgery . Haemorrhage due to the placenta previa may compromise the foetus because of the pre maturity or hypoxia while mother dies due to delayed surgical intervention or resuscitation from the shock .This happens more commonly with the patient in whom presence of the placenta previa is un noticed i.e. unbooked and very rarely in booked cases.

Maternal mortality in Pakistan is 340/100,000 live births while perinatal mortality is 91/1000 total births (still & alive) .Both rates are very high when compared with developed countries as shown in the Table No.1 ,but we are improving when compared to the developing countries as in the same Table 1.

Factors contributing to this high mortality are multiple, one among which is haemorrhage, others are maternal diseases, surgical complications, toxemia or infection .

Seventy percent of the population in Pakistan, resident of the villages, is poor, illiterate and unaware of health education and facilities available at the hospitals. High percentage of the patients still being attended and delivered by Dais/traditional birth attendants.

Low implantation of the placenta is observed in 5-28 % of the pregnancies in second trimester but as the uterus grows, only 3% are placenta previa (average incidence of 0.4-0.8% of the pregnancies)[2].

First episode of the minor bleeding occurs in 2nd/3rd trimester. Uterus is non-tense, non-tender and presenting part non-engaged with increasing tendency of mal presentation. It is staged 1-4 according to the lower uterine segment encroachment.

Aims & Objectives

1. To calculate risk of mother & foetus in un booked cases.
2. To evaluate the factors responsible.
3. To reduce foeto maternal mortality by avoiding & treating the avoidable causes.

Material & Method

Pregnant patient of 15-45 years age presenting through OPD/COD in Lady Willingdon Hospital during period of three years from April 1997-1999,with history of antepartum haemorrhage or placenta previa were included in the study . Risk factors assessed like age, parity ,multiple pregnancy ,previous surgery & co existing maternal disease. Results were compared between booked & unbooked cases with reference to the foeto maternal out come.

Results.

Total patients presenting in the Lady willingdon Hospital in these three years were 124528 out of these 95792 presented through out patient department while 28736 through causality out door refer to table No.2.

History of antepartum haemorrhage was present in 8945 refer to table No.3.and diagnosis of placenta previa was made in 310, out of these, 227 cases presented in causality out door. Five mothers died while 11 foetuses

did not survive in these 310 placenta previa cases . 166 mothers were above 30 years of age while 73 were of 25-30 years age , 49 between 20-25 years and 22 were below 20 years age . Forty five patients having parity 5 or more, 33 had parity 2-4 and 41 were primigravida.

History of previous surgery was present in 131 refer to Table 4, & co existing pathology in 139 which were hypertension (10cases), diabetes mellitus (5 cases), and infection (12 cases), refer to Table 5.

History of antepartum haemorrhage was present in previous pregnancy in 99 cases & in current pregnancy 61 cases. 100 foetuses were with malpresentation, 101 with prematurity refer to Table 5.

Two hundred and fifty nine patients had central placenta previa refer to Table 6.

Two hundred and seventy four cases delivered by caesarean section and only 36 out of 310 were vaginally delivered.

Out of 113 maternal deaths in these three years 11 were due to antepartum haemorrhage, in which placenta previa was the cause in 5 cases and 96 maternal deaths were due to some other reason. 270 patients of the placenta previa were unbooked and only 40 cases were booked out of total 310 patients. Past history of placenta previa was present once in 84 while it was more than once in 12 and there was no previous history in 214 cases out of total 310 cases.

Table 1.

Countries	Maternal mortality / 100000 live births
America	50
China	95
U.K	7
Denmark	5
Nepal	1500
Bangladesh	850
India	570
Pakistan	340
Sri Lanka	17

Table 2. Total pregnant patients presenting in Lady Willingdon Hospital, Lahore.

Years	Out patient department	Casualty out door	Total
1997	32488	9827	42315
1998	31091	8913	40004
1999	32213	9996	42209
Three years (total)	95792	28736	124528

Table 3. Total pregnant patients presenting with antepartum haemorrhage.

Years	OPD	Causality out door	Total
1997	897	2101	2998
1998	829	2004	2833
1999	1	2212	3114
3years (total)	2628	6377	8945

Table 4.Patients presenting with placenta previa having history of endometrial demage previously.

Years	No history	Dilatation & Curretage	Myo-mectomy	Cesarean Section	Total
1997	70	27	2	7	95
1998	56	29	3	12	100
1999	53	35	2	25	115
Three years (total)	179	89	7	44	310

Table 5 Patients having coexistant pathology with placenta previa .

No Pathology	Infection	Hypeten sion	Diabetes mellitus	Bleeding disorder	Malpresentation	Past history of surgery	Prematurity
35	5	2	2	0	22	25	24
45	3	5	2	0	35	44	35
51	4	3	1	1	43	62	42
141	12	10	5	1	100	131	101

Table 6 Type of the placenta previa .

Years	1	2	3	4	Total
1997	1	15	48	31	95
1998	3	12	51	34	100
1999	4	16	60	35	115
Three years (total)	8	43	159	100	310

Discussion

As shown by the results major percentage, 95792 patients presented through out patient department refer to Table 2 in these three years but antepartum haemorrhage was admitted through casualty out door 6377 refer to table No.3 and majority of which 270 were unbooked This point recognises that if we make diagnosis of placenta previa earlier in the out patient department & book them when the patient is without complication , we can follow more vigilantly than if they present in the casualty out door in the state of shock & compromised fetus when they have already bled profusely leading to poor feto maternal prognosis.

Incidence of the placenta previa in the antepartum haemorrhage is 27% and it is 0.4-0.8 % in general population by Nielson & Varen 1991[3], in our study incidence of the placenta previa was 5.7 % (310/ 5377) in antepartum haemorrhage cases & 0.24 % (310/124528) in the general population, which proves important role played by placenta previa in causing antepartum haemorrhage. Chapman et al 1979[4] found low lying placenta in 28% when scanned before 24 weeks and it's just 3% at term. Same results were predicted by Comeau et al 1983[5] on 222 cases low lying placenta before 20 weeks 2 2% at term had placenta previa.

Since results showed increasing incidence with increasing age & parity. Rose & Chapman[6] conducted a study on 80 patients showing association of increasing age & parity with placenta previa. Family planning & birth spacing may solve this problem .According to the study by the Naeye[7] incidence was maximum 0.8% above 30 years age same finding by the Acanth C.V[8].

Coexisting factors diagnosed in 0.12% (39/310) as shown in Table 5, if managed accordingly may improve the results. Hibbard 1986[9] showed that placenta previa is associated with increased incidence of malpresentation .

Further risk of prematurity and haemorrhage may be avoided by cesarean section at 37 completed weeks especially in cases with uncontrolled pathology & previous cesarean section for recurrent cause.

In a study of 147 cases major placenta previa Mc. Shane et al 1985[10] found that 22(15%) had had a previous cesarean section .

Clark et al 1985[11] also confirmed similar findings in which 2.2 % was incidence of past history of cesarean section. Study by Crimes and Techman 1984[12] shows that induced abortion is associated with increased incidence of placenta previa. .Same findings depicted in a study by Newton et al 1984[13].

Previous surgery was identified factor in studies conducted by Leung W. C. & Chattopadly[14] .Smoking is recognised factor in United Kingdom as documented by Chelmow D[15] ,and also by Monica[16] .This is uncommon in Pakistan. Recurrence of the placenta previa is 42.5% in the study by Schilling J. 1992[17]. While it was 30.9%(96/310) in our study. History of episode of antepartum haemorrhage in current pregnancy were there in 93.3% while 11% had more than once in a study by Magon E.F[18].

Facto maternal mortality has been reduced with current management.

Sampson et al 1984[19] reported benefit from an intravenous terbutaline infusion. Silver et al 1994[20] advocated aggressive conservative management, tocolysis and blood transfusion showing low peri natal mortality 42/1000.

Macafee in 1962[21] showed improved results with bed rest , blood transfusion and liberal use of cesarean section.

Suggestions.

1. Early booking in all cases.
2. Enhancing general public awareness in regard to importance of antenatal care ,and utilizing available medical facilities
3. Ultrasonography at 18 weeks for congenital abnormality & localization of placenta .
4. Frequent ante natal visits in screened cases.
5. Anticipation of the factors & co existing pathology and managing it accordingly.
6. Making all efforts to take the pregnancy to maturity gestational age preferably term.
7. Limiting family size to maximum 3 and completing the family before 30 years of age practicing family planning later.
8. Anticipating pre maturity, mal-presentation & infection in known cases of placenta previa and vigilant management .

Conclusion

Maternal & perinatal mortality has been dramatically reduced during last 20 years. Main factors were readily availability of blood transfusion , liberal use of cesarean section ,bed rest .Conservative management & improved understanding of the coagulation factors.

Maternal & perinatal mortality is negligible in the booked cases with regular frequent ante natal visits ,with early diagnosis . Admission of the patient at term in the hospital .Avoiding and anticipating the complications . Surgery by the senior personnel . Good paediatric care for the fetus especially in premature cases.

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