

## CERTAIN ASPECTS OF ACCIDENTAL HAEMORRHAGE WITH A REVIEW OF 581 CASES

BY

DR. O. FRANCIS, M.B.B.S., D.G.O.

Accidental haemorrhage is one of the major complications of pregnancy and labour.

In the Government Hospital for Women and Children, Egmore, Madras, during a period of 10 years from 1939 to 1948, there were 581 cases of accidental haemorrhage, and the total number of deliveries was 55,557 giving an incidence of 1 in 96. Of these 581 cases, 429 or 74% were of the combined type, 84 or 14% of the revealed type, and 68 or 12% of the concealed type.

The number of primiparae in this series was 99, the total number of primiparae confined during this period being 15,664, thus giving an incidence of 1 in 158. The rest occurred in paras 2 to 14, majority

Paper read before the VIth All-India Obstetric & Gynaecological Congress.

being in paras 2 to 10 as shown in Table I.

TABLE I  
*Incidence according to Parity*

Para	No. of cases	Para	No. of cases
I	99	VIII	35
II	82	IX	23
III	74	X	21
IV	66	XI	15
V	67	XII	5
VI	41	XIII	1
VII	51	XIV	1

Age incidence varied from 17 to 40, majority being 20 to 35 years.

Regarding the etiological factors responsible for the haemorrhage in this series of cases, 116 or 20% showed signs of pre-eclamptic toxæmia and 114 or 19.6% had high B.P. alone and 2 cases had eclampsia, as shown in Table II(A) and II(B).

TABLE II (A)  
*Etiological Factors*

Etiological factors	Combined 429 cases	Revealed 84 cases	Concealed 68 cases	Total 581 cases
High B. P. Alb. and Oedema	19	1	2	22
High B. P. and Alb.	41	4	17	62
High B. P. and Oedema	18	3	3	24
Alb. and Oedema	6	2	—	8
<b>Total pre-eclampsia</b>	<b>84(19%)</b>	<b>10(12%)</b>	<b>22(32%)</b>	<b>116(20%)</b>

TABLE II (B)

High B. P. alone	83(19%)	17(20%)	12(18%)	114(19.6%)
Eclampsia	2			2

Thus 32% of the concealed type showed evidence of pre-eclamptic toxæmia, whereas only 19% of the combined and 12% of the revealed had pre-eclamptic toxæmia.

Only 2 cases gave a history of injury, one having had a fall on the abdomen; the other a kick on the abdomen just preceding the onset of bleeding. In one case, bleeding occurred when she was cutting some wood. Thus injuries and accidents play a very limited part in the

tions. In rare cases, where the placenta has completely separated, it may slide down to lie over the internal os in front of the presenting part, causing a prolapse of the placenta which may simulate placenta prævia, but there was no such case in this series. There were 6 cases of hydraminos and 3 cases of twins in this series.

107 cases or 18% showed a previous vicious obstetric history as shown in Table III.

TABLE III

Previous obstetric history	Concealed	Revealed	Combined	Total
Abortions	8	6	29	43
Premature labour	1	2	14	17
Still births	5	5	23	33
Eclampsia	—	—	2	2
A. P. hæmorrhage	2	3	7	12
Total	16	16	75	107

etiology of accidental hæmorrhage. In these cases, it is, as De Lee mentions, an abruption or forcible breaking off of the placenta from its attachment in the uterine wall. In 2 cases of the combined variety there was complete separation of the placenta which was found lying detached from the uterine wall, but no case of separation of the placenta occurred during operative procedures, as internal podalic version, external version or breech extrac-

Of these, 36 cases or 34% showed signs of pre-eclamptic toxæmia in the present pregnancy.

Bleeding in 61% of the cases occurred during 36 to 40 weeks. Out of the 581 cases, 128 cases or 22% had a tense and tender uterus. This was found in 31% of the concealed, 23% of the combined and 12% of the revealed type.

The term of pregnancy at which hæmorrhage occurred is shown in Table IV.

TABLE IV

Type of hæmorrhage	Upto 28 wks.	28 to 32 Wks.	32 to 36 Wks.	36 to 40 Wks.
Concealed	2	7	8	51
Revealed	4	15	10	55
Combined	13	42	126	248
Total	19	64	144	354

As regards *presentation*, 94% were vertex, 5% breech and 1% shoulder. In 320 cases or 55%, the method of treatment in the different types of haemorrhage is shown in Table V (A) and V (B).

TABLE V(A)  
*Spontaneous Deliveries*

Method of treatment	Revealed	Concealed	Combined	Total
Watchful expectancy ..	28	40	144	212
Artificial rupture of membranes ..	28	11	116	155
Artificial rupture of membranes and pituitrin ..	14	6	80	100
Pituitrin alone ..	4	—	4	8
Vaginal plugging ..	—	—	2	2
Vaginal douche & plugging	1	—	1	2
Vaginal plugging & pituitrin	—	—	2	2

TABLE V(B)  
*Operative Deliveries*

Nature of operations	Revealed	Concealed	Combined	Total
Willet's forceps ..	4	1	36	41
Axis-traction forceps ..	—	3	5	8
Breech extraction ..	—	2	18	20
Internal podalic version ..	4	2	6	12
Ext. version, rupture of membranes & bringing down a foot ..	1	—	—	1
Abdominal hysterotomy	—	2	1	3
Classical caesarean section	—	1	2	3
Caesarean hysterectomy ..	—	—	1	1
<b>Total ..</b>	<b>9</b>	<b>11</b>	<b>69</b>	<b>89</b>

foetal heart was absent or doubtful on admission. 198 cases or 34% showed moderate to severe degree of anaemia.

*Treatment.* In the majority of cases, spontaneous delivery occurred, either after watchful expectancy or after artificial rupture of membranes followed, if necessary, by an injection of pituitrin. In this series, spontaneous delivery occurred in 481 or 83% of the cases; operative deliveries were required in only 89 cases or 15%; 11 cases or 2% died undelivered.

After one of the internal podalic versions, the after-coming head had to be perforated. External version, rupture of the membranes and then bringing down a foot was done in one case of the revealed variety with shoulder presentation. As this is easier than the bipolar method, it should always be tried first, all the more so, as it is advisable to reduce the internal manipulations to a minimum. Abdominal route for delivery is indicated only in rare selected cases. In this series, abdominal hysterotomy was done in

3 cases and classical caesarean section in 4 cases because of the rigid cervix with closed os. In one of these, hysterectomy was performed because of uteroplacental apoplexy.

Out of 581 cases, 11 or 2% died undelivered. These were brought in a more or less moribund condition and were treated with restoratives like glucose, brandy, coramine, and intra venous saline, etc., being unfit for any operative interference. Of these 11 cases, 2 were of the concealed type and 9 were of the combined.

Of the 570 cases which delivered here, there was postpartum haemorrhage in 41 or 7.2% of the cases. Of these, 35 were in the combined type, 5 in the concealed and one in the revealed. 28 or 68% of these cases were

successfully treated while 13 cases or 32% died. Of these 41 cases, 29 were in spontaneous deliveries and 12 in operative deliveries.

*Blood transfusion* was started at this institution only in 1947. 15 cases had blood transfusion in this series, out of which 12 recovered, including one patient brought in a collapsed state.

*Maternal Mortality.* In this series of 581 cases, there were 42 maternal deaths of which 11 died undelivered, having been brought in a more or less moribund condition, thus giving a gross mortality of 7.2% and a corrected mortality of 5.4%.

Of 31 cases which died after delivery, 6 were of concealed, 3 of revealed and 22 of combined type.

TABLE VI  
*Gross Maternal Mortality according to Year (42 out of 581-7.2%)*

Year	No. of accidental haemorrhage	No. of maternal deaths	Percentage
1939	64	3	4.7
1940	66	3	4.5
1941	78	10	12.8
1942	38	2	5.3
1943	47	3	6.4
1944	47	3	6.4
1945	54	2	3.7
1946	54	3	5.6
1947	58	6	10.3
1948	75	7	9.3

TABLE VII  
*Maternal Mortality according to Type of Haemorrhage.*

Type of haemorrhage	Total no. of cases.	No. of deaths	Percentage
Revealed	84	3	3.6
Concealed	68	8	11.8
Combined	429	31	7.2

Thus the concealed type had the maximum mortality and the revealed the minimum.

TABLE VIII  
Maternal Mortality according to Parity.

Para	No. of deaths	Percentage
I	12	12
II	2	2.4
III	6	8
IV	1	1.5
V	2	3
VI	2	5
VII	7	13.7
VIII	4	11.4
IX	1	4.3
X	5	23.8

Of 6 cases of concealed type that died, 3 died after spontaneous delivery within 3 hours due to p.p.h., one died after forceps delivery due to shock, one died after internal podalic version due to uterine sepsis, and one died after classical caesarean section due to peritonitis.

Out of 3 cases of the revealed type that died, 2 died after spontaneous delivery due to uterine sepsis, and one died due to severe p.p.h. after Willett's forceps application.

Of 22 cases that died in the combined variety, 17 had spontaneous deliveries and 5 operative deliveries. Of 17 spontaneous deliveries, 6 died

of shock, 7 of p.p.h., 3 of uterine sepsis and one of convulsion on 7th day of a sudden attack of cerebral embolism. Of the 5 operative deliveries, 3 died of p.p.h., the operations being internal podalic version, Willett's forceps application and breech extraction; one died due to shock after Willett's forceps application; and one died on 7th day after internal podalic version and perforation of after coming head, due to uterine sepsis.

Thus in 31 cases that died after delivery, causes of death were p.p.h. in 14, shock in 8, uterine sepsis in 7, peritonitis in one and cerebral embolism in one.

TABLE IX  
Causes of Maternal Mortality as per Type of Haemorrhage.

Causes of maternal mortality	Concealed	Combined	Revealed	Total
Died undelivered (admitted moribund)	2	9	—	11
Postpartum haemorrhage	3	10	1	14
Shock	1	7	—	8
Uterine sepsis	1	4	2	7
Peritonitis following caesarean section	1	—	—	1
Cerebral embolism	—	1	—	1
<b>Total</b>	<b>8</b>	<b>31</b>	<b>3</b>	<b>42</b>

In these cases, there were 4 eclampsia cases, 2 of which were ante-partum and 2 post-partum, 6 severe pre-eclampsia and 5 severe anaemia cases.

*Maternal Morbidity.* In 62 cases there was morbidity in the puerperium, i.e. 11.5% of the cases. Of

were only 143 live babies, i.e. 25%. Of remaining 75%, 51% were still born, 13% macerated foetus and 11% neonatal deaths. Greatest foetal mortality was in the concealed type. The number of live births, stillbirths, macerated foetuses and neonatal deaths as per type of haemorrhage is shown in Table X.

TABLE X  
*Foetal Mortality.*

Type of haemorrhage	Total No. of babies	Alive No.	Still-born No.	Macerated foetus No.	Neonatal deaths No.
Concealed	67	9 13%	42 63%	13 19%	3 5%
Revealed	84	47 56%	18 22%	6 7%	13 15%
Combined	422	87 21%	232 55%	53 12.5%	50 11.5%
<b>Total</b>	<b>573</b>	<b>143 25%</b>	<b>292 51%</b>	<b>72 13%</b>	<b>66 11%</b>

these, 40 had uterine sepsis, the maximum incidence being in the combined 31 cases, while 5 cases in the revealed, and 4 cases in the concealed. The concealed and revealed cases in this group had all spontaneous deliveries, while in the combined variety 27 had spontaneous deliveries and 4 operative deliveries, viz. 1 breech extraction, 1 Axis traction forceps and 2 Willett's forceps. There were 10 cases of urinary infection (7 in combined, 2 in revealed and 1 in concealed), 3 cases of combined type developed broncho-pneumonia, 6 cases had pyrexia due to breast engorgement (5 combined and one revealed), 2 cases in the combined type developed mania and one case diarrhoea.

*Foetal Mortality.* Out of 573 babies (including 3 sets of twins), there

The causes of foetal death were chiefly prematurity, asphyxia and in some cases toxæmia.

#### *Conclusion.*

Accidental haemorrhage is a fairly common complication of pregnancy and labour. It has no special relation to parity.

Cases with previous vicious obstetric history show a special predilection to accidental haemorrhage. Trauma accounted for only 2 cases. Pre-eclamptic toxæmia was found in about 20% of cases, maximum being in the concealed variety; hypertension alone was found in 19.6% of the cases, maximum being in the revealed type; and eclampsia in 0.3% of cases. Thus, high blood pressure appears to be responsible for about 40% of the cases, and for the remain-

ing nearly 60% of the cases, no obvious cause was found. In some at least of these cases, the possibility of dietetic deficiencies, particularly vitamins C, E or K, has to be thought of.

In the majority of cases, spontaneous delivery occurs. Abdominal route for delivery is indicated only in selected cases. Hysterectomy is rarely necessary. Vaginal plugging is to be condemned, particularly in the concealed and combined types.

Maternal mortality is greatest in the concealed variety and least in the revealed. The causes of death are chiefly shock, p.p.h. and uterine sepsis. The combined variety is more prone to uterine sepsis.

Foetal mortality is very high, the maximum being in the concealed variety.

Blood transfusion saved a number of cases and must always be given in severe cases.