The Bulletin of the
Kandang Kerbau Hospital,
Singapore, Malaysia.
Vol. III—No. 1—March 1964

Accidental Haemorrhage

by

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My role in this symposium is to say a few words on the Management of Accidental Haemorrhage, which is the separation of a placenta situated wholly in the upper uterine segment.

On admission to Hospital, immediate Management consists of assessing the patient's general condition, blood grouping and matching, sedation, and transfusion as required. The blood loss is estimated and any evidence of Pre-eclamptic Toxemia noted.

There are three types of Accidental Haemorrhage:—

(1) **Revealed Accidental Haemorrhage**

External bleeding only occurs, and there is no uterine tetany. The diagnosis is supported by the finding of retro-placental clots after delivery; this type will necessarily include some cases of Placenta Praevia Type I. It is the commonest variety.

(a) **Slight Bleeding**

Conservative measures as in Placenta Praevia are instituted. If there is pre-eclamptic toxemia, subsequent treatment will be influenced by its progress.

(b) **Heavy or persistent bleeding**

Active measures are necessary, the patient's general condition being sustained by blood transfusion. When her condition is satisfactory, examination in the Operation Theatre with artificial rupture of the membranes and artificial stimulation of labour by intravenous Pitocin, if necessary, will almost always result in a successful vaginal delivery.

Caesarean Section may be necessary because of other complications, or if labour is not in progress and the cervix closed, or if artificial rupture of the membranes has failed to control the bleeding.

(2) & (3) Mixed and Concealed Accidental Haemorrhage

In the classical **concealed** type the clinical picture is one of uterine tetany, maternal shock and intra-uterine death of the foetus. Care must be taken to exclude Rupture of the uterus, a point of practical consideration, especially when the use of Pitocin is contemplated.

In cases of Mixed Accidental Haemorrhage, the clinical picture is less extreme.

Objects of treatment are:—

(i) To correct shock and blood loss quickly and adequately.
(ii) To relieve pain.
(iii) To correct hypofibrinogenaemia.
(iv) To prevent renal failure.
(v) To effect delivery within a short time i.e. within 4-6 hours after the onset of haemorrhage.

Correction of blood loss

Blood transfusion should be given adequately and initially rapidly. There is a risk of under, rather than over-transfusing the patient. One should beware of the small steady ooze of blood loss which is more misleading than a gush of blood.

Our patients, owing to their poor state of nutrition, and often anaemia, do not stand blood loss well, and therefore need vigorous treatment to prevent or counteract shock. This fact is offset in many cases by the youth of the patients.

Relief of Pain

This is achieved by Injection Morphine.

Correction of Hypofibrinogenaemia

Some authorities believe that a clotting defect is already established in cases where the uterus is tense and tender. Clot observation test is

performed hourly. If the blood fibrinogen concentration is 100 mgm% or less, no clot is formed; if there is a lesser degree of hypofibrinogenaemia, clotting is delayed and the clot is unstable. Fibrinogen stock should always be at hand and 2-6 gms. of fibrinogen given intravenously. Alternatively, quadruple strength plasma (1 pint 4.4 gms. fibrinogen) should be given. It may be that some other coagulation factors in addition to fibrinogen are implicated, and therefore fresh whole blood should be administered as well. Dextran should not be given in cases of Accidental Haemorrhage.

Prevention of renal failure and effecting a rapid delivery are inter-related. Difference of opinion still exists regarding the best method of effecting delivery.

Gibberd (1945) strongly advocates conservative treatment, maintaining that the uterus will contract if given time to recover.

Baird (1962) also supports the conservative view, stating that Caesarean Section has little place in the modern treatment of this condition except occasionally to save the life of the foetus in the few cases where the foetal heart can still be heard.

Similarly, Greenhill (1962) states that in most patients conservative measures produce much better results.

Artificial Rupture of the Membranes as soon as possible without awaiting the patient's complete recovery from shock is advised. This reduces intra-uterine tension and extension of placental separation, absorption of thromboplastin and risk of anuria.

Oxytocin Drip: Use of this is controversial. It should be given cautiously, if the onset of labour is delayed after artificial rupture of the membranes.

Prophylactic Ergometrine is given to forestall Post Partum Haemorrhage, while Hysterectomy for Post Partum Haemorrhage is seldom necessary whether delivery is by the vaginal or abdominal route.

Delivery by Caesarean Section also has its advocates:—

Professor Macafee (1956) recommends Caesarean Section after resuscitative measures have been instituted. He states "To operate on a patient suffering from shock is bad surgical practice, but one is dealing with a desperate obstetric emergency, which in any circumstances is associated with a serious prognosis. It seems more reasonable to remove the cause of the shock, when resuscitative measures should be more successful."

Eastman (1950) also advises Section as a routine.

If the foetus is still alive, when the patient is first seen, Caesarean Section is done if quick delivery vaginally cannot be anticipated, or if foetal distress is manifested. The patient must first be energetically treated to overcome shock. Consideration should also be given to the anticipated maturity of the infant, and if it is too small to survive, Section is not justified on foetal indications alone.

Rarely will delay in the progress or onset of labour be a maternal indication for Section.

I refer to an analysis of 82 cases of Accidental Haemorrhage that occurred out of a total of 19,852 deliveries at the Kandang Kerbau Hospital, Singapore from July to December 1962, an incidence of approximately 0.5%

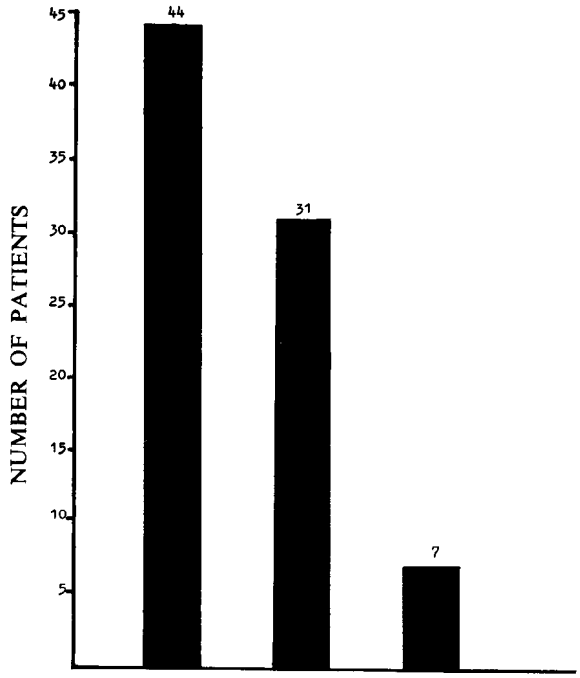
There were no maternal deaths, and the foetal mortality was 34%. The infants usually died from anoxia secondary to placental separation, and from prematurity. Evidence (Wickster 1952; Smith 1953) has recently been introduced to indicate that tears in the placenta can result in foetal bleeding, and this can be of such significant quantity, that shock and death of the foetus may result. There were 9 Caesarean Sections, of which 1 was of the Classical type, and 2 Sub-total Hysterectomies (one following Classical Caesarean Section in a case of Couvelaire uterus with free blood in the peritoneal cavity, and the other for severe Post Partum Haemorrhage after a vaginal delivery in a 31 year old Gravid 8).

Fibrinogen was used in 2 cases.

Oliguria occurred in 1 case following Lower Segment Caesarean Section for Mixed Accidental Haemorrhage, but the patient responded to conservative measures.

Examination of the placentae showed that in 1 case there was retroplacental bleeding behind a succenturiate lobe only.

Fig. 1 shows an analysis of the 82 cases of Accidental Haemorrhage relating to the type of Haemorrhage.



It will be seen that the majority of cases are of the revealed type, being nearly $1\frac{1}{3}$ times as common as the mixed type, and 6 times as common as the Concealed Type.

Table I

FOETAL MORTALITY IN TOXAEMIC AND NON-TOXAEMIC ACCIDENTAL HAEMORRHAGE					
	TOTAL	LIVE BIRTHS	STILL BIRTHS	NEONATAL DEATHS	FOETAL MORTALITY
TOXAEMIA	10	7	2	1	30%
NON-TOXAEMIA	72	47	19	6	35%

Table I shows that although the number of cases of non-toxamia Accidental Haemorrhage is 7 times that of toxamia Accidental Haemorrhage, Foetal Mortality in both types is almost identical.

Table II

(Numbers in Roman numerals indicate Mixed and Concealed types)

NUMBER OF CASES IN RELATION TO AGE AND PARITY IN ACCIDENTAL HAEMORRHAGE													
Age	G R A V I D A												
Yrs.	1	2	3	4	5	6	7	8	9	10	11	12+	
<20			I	I									Total = 33 patients Revealed = 22 = 66 2/3% Mixed) Con-) = 11 = 33 1/3% cealed)
20-29	3	III 2	I 1	II 4	7	1	1	I 1		I 2		1	
30-34		2		1	II 2	II	III 1	III 2	I 1	1			Total = 49 patients Revealed = 22 = 45% Mixed) Con -) = 27 = 55% cealed)
35-39	I 1			1		I 1	III	I 2	II	2	IV 1	I	
40+			1	I				1	I 2	I			
Total = 37 patients Revealed = 25 = 68% Mixed) = 12 = 32% Concealed)						Total = 45 patients Revealed = 19 = 42% Mixed) = 26 = 58% Concealed)							

Table II shows that there are more cases of all types of Accidental Haemorrhage in the age group 30 years and over, while a similar pattern is reflected in the Gravida 6 and over group.

In the under 30 age group and under Gravida 6 group, the number of cases of Revealed Type is double that of the Mixed and Concealed Types, while in the 30 years and over group and the Gravida 6 and over group, the more severe types of Accidental Haemorrhage prevail.

One patient aged 28 years, Gravida 13, was found to have a Couvelaire uterus at Caesarean Section, and a sub-total Hysterectomy had to be performed.

Table III

(Numbers in Roman numerals indicate Still-Births, and Neonatal Deaths).

FOETAL MORTALITY IN RELATION TO BIRTH WEIGHT AND TYPE OF ACCIDENTAL HAEM:

TYPE REVEALED	BIRTH WEIGHT IN POUNDS <2	2+	3+	4+	5+	5½+	6+	7+	8+	
Spontaneous		2	2	I 5	I 3		5	1		Total = 44 pts Alive = 40 S. B. = 2 N.N.D. = 2
"/ Pitocin						1				
A.R.M.	I		1	1	1	1	5	2		Foetal Mortality) = 10%
"/ Pitocin				1	2	3	2	.	1	
C. Section			1				1			
MIXED										
Spontaneous			I 1			1	1	1		Total = 31 pts Alive = 13 S. B. = 14 N.N.D. = 4
"/ Pitocin										
A.R.M.			III		II	II	4	2		
"/ Pitocin			1	II	II		1	1	1	Foetal Mortality) = 58%
C. Section			1	I 1		1	1			
CONCEALED										Total = 7 pts
Spontaneous					I					Alive = 1
"/ Pitocin										S. B. = 5
A.R.M.					III					N.N.D. = 1
"/ Pitocin			1							Foetal Mortality) = 86%
C. Section							1		1	

Total	= 42 patients	Total	= 40 patients
Alive	= 22 "	Alive	= 32 "
Still-births	= 13 "	Still-births	= 8 "
Neonatal deaths	= 7 "	Neonatal deaths	= 0 "
Foetal Mortality)	= 48%	Foetal Mortality)	= 20%

Table III shows that the Foetal Mortality rises with the more severe types of Accidental Haemorrhage. Prematurity (below 5½ lbs. birth weight) exacts a toll of Foetal Mortality more than twice that of more mature babies.

Table IV

From our figures as given in Table IV, it would seem that even excluding unavoidable foetal deaths, i.e. considering only the cases in which the foetal heart was heard on admission, the foetal mortality is higher in cases delivered per abdomen than per vias naturales.

However, if a larger series of cases were to be analysed, there may well be fewer deaths in the Caesaran Section group and foetal salvage increased by a timely section.

FOETAL MORTALITY IN DELIVERY PER VAGINAM AND BY CAESAREAN SECTION

TYPE	DELIVERY	TOTAL	ALIVE	STILL BIRTHS	NEONATAL DEATHS	FOETAL MORTALITY
ALL CASES	VAGINAL	73	49	18	6	33%
	C.SECTION	9	5	3	1	44%
F.H.H. on ADMISSION	VAGINAL	58	49	4	5	16%
	C.SECTION	8	5	2	1	38%