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Antepartum Haemorrhage

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Antepartum haemorrhage is defined as any bleeding from the genital tract after the 28th week of gestation and before the birth of the baby.

There are 3 main groups of causes:

(1) Causes that occur at or near the placental site,

(2) Local pathology in the lower genital tract,

(3) Unknown causes.

The first group can be subdivided into:

(a) Placenta Praevia,

(b) Accidental Haemorrhage,

(c) Vasa Praevia,

(d) Marginal Sinus Rupture.

The subject of my contribution to this afternoon's symposium is on placenta praevia. Much has been written on this problem of antepartum bleeding and basically there seems to be general agreement on its management. I propose here to discuss some of the aspects of this subject.

Any painless, causeless vaginal bleeding in late pregnancy should always lead the doctor to suspect placenta praevia and it calls for early hospitalisation without any vaginal examination being done. It is the usual practice after the acute episode has passed to do a speculum examination to detect the source of bleeding and to rule out any local cause of bleeding such as varicose veins of the vagina, carcinoma of the cervix, cervical polypi etc. If circumstances permit a positive diagnosis of placenta praevia is made by vaginal examination at 37 weeks to avoid the risk of prematurity. The diagnosis can also be established by visualisation at Caesarean section or by X-ray. Placentography is generally regarded as an important adjunct to rather than a substitute for clinical diagnostic measures. According to some centres an accurate prediction of the placental site can be made in over 90% of cases. It has also been claimed that X-ray can play a part in diagnosing placenta praevia before the patient has had any bleeding e.g., in cases of high heads near term or transverse lies. Advocates also recommend that if both clinical and radiological findings suggest that the placenta is not praevia the patient may be allowed home provided no other obstetric complication is present. If there is radiological evidence to support the abdominal clinical signs of a major placenta praevia then the digital examination which nearly always provokes an alarming haemorrhage can be avoided.

Placenta praevia is no longer regarded as an obstetrical emergency to be dealt with at the first haemorrhage. Some of the general principles to remember in treating a possible case of placenta praevia are:

(1) The patient must be hospitalised without any vaginal examination being done.

(2) Treat expectantly if the pregnancy is between 30 and 36 weeks, and if the bleeding is not excessive, persistent or recurrent which may endanger the life of the mother or the foetus.

(3) Active treatment is carried out if the patient is in labour or once the pregnancy has reached 37 weeks of pregnancy when the baby is of a good size.

(4) Prior to an internal examination in the theatre everything must be prepared for a possible Caesarean Section.

The modern methods of management of placenta praevia can be summarised as:

(1) Temporising i.e., waiting until the baby has matured with a good chance of survival.

(2) Low artificial rupture of membranes.

(3) Caesarean section.

Caesarean section is indicated in all major types of placenta praevia and in the posterior type 2. The other minor degrees are dealt with usually by low amniotomy as in these cases the haemostatic tampon effect of the head is sufficient to arrest haemorrhage.

Thanks to modern methods, particularly antibiotics and blood transfusion, the maternal recovery rate is high but the foetal mortality is still high because of asphyxia and prematurity.

According to Professor Macafee (1962), between 1844 and 1939 the foetal mortality in placenta praevia remained at about 60% while the maternal mortality fell from 30 to 5%. Since 1945 the ideal zero maternal loss has been achieved in many places and the foetal mortality has been appreciably lowered to about 10%. This improvement has been attributed to several factors:

(1) Improved resuscitative measures.

(2) Expectant therapy.

(3) Increased use of Caesarean section.

(4) Improved paediatric care and management of premature infants.

I thought it would be of interest and value to analyse our statistics for placenta praevia. However, I must apologise that I am able only to obtain figures for Caesarean sections in placenta praevia as information relating to vaginal deliveries in placenta praevia is not readily available from our record book. For the period of 6 months from 1/5/62 to 31/10/62 there were 100 cases of Caesarean sections for placenta praevia and 102 babies were delivered including 2 pairs of twins.

TABLE I

Degree	1	2	3	4
No.	2	29(30)	39	30(31)
Foetal lose	0	5	9	8
Foetal loss %	0	16.7	23.1	25.8
Overall foetal loss		21.8%		
Maternal mortality		0%		

The figures in brackets refer to the number of babies.

From the table it is seen that the foetal loss is directly proportional to the severity in degree of placenta praevia. However, our overall foetal loss of 21.8% is high. According to the Belfast series Caesarean section is associated with the lowest foetal mortality viz., a perinatal loss of 4.8%.

Table 2

Foetal Mortality In Relation To Birth-Weight

	Alive	S.B.	N.N.D.	Total	%Loss
5½ lbs & over	57	5	2	64	10.9
Under 5½ lbs	13	0	2	15	13.5
Under 4½ lbs	10	5	8	23	56.5

In the group 5½ lbs and over all the 5 stillbirths were unavoidable as the foetal heart was absent on admission.

In the under 5½ to 4½ lbs group there were 2 neonatal deaths. In one case there was excessive bleeding and intervention was considered necessary. The other case was not bleeding on admission but the period of gestation was calculated to be 36 weeks and conservatism was not persisted.

The greatest loss occurred in the under 4½ lbs group, 13 babies were lost out of 23, of these 8 were considered to be non-preventable, the remaining 5 might have been salvaged if conservative treatment was adopted for a longer period, as none of the mothers of these 5 babies was having any serious bleeding at the time of operation. Three of these patients were calculated to have reached 36 weeks maturity and the fourth was an undiagnosed twin pregnancy at 30 weeks. It would seem there was some error of judgement as regards size and maturity in these cases.

Six of the 22 babies are therefore considered to be avoidable loss i.e., 15.7% foetal mortality in Caesarean section for placenta praevia can be regarded as our irreducible minimum.

Fifteen of the 22 babies were under 5½ lbs i.e., prematurity accounts for 68.2% of perinatal mortality in Caesarean section for placenta praevia.

In summing up it seems that the high foetal loss in placenta praevia is due to asphyxia and the complications of prematurity. The possible measures for reducing this wastage can theoretically be implemented by improving the maternal health and raising the haemoglobin level in the antenatal period to reduce the severity of foetal asphyxia when bleeding does occur as our patients usually have a pre-existing anaemia. Conservatism should also be carried out to nearer term if possible or till the baby is mature. It is, of course, realised that conservative therapy can be over-practised and that there is an optimum period for active measures.

References

Macafee, C.H.G. (1962): Postgrad. med. J., 38,254.