

PLACENTA PRAEVIA

A CLINICAL REVIEW OF 122 CASES

BY

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A report on 122 cases of Placenta Praevia, occurring amongst 16,649 confinements in Eden Hospital, Calcutta, during the period of 3 years, 1946 to 1949, is given. The incidence is about 7 in 1,000 pregnancies. Placenta Praevia was found four times commoner in multipara than in primi-gravida.

There were altogether 197 cases of antepartum haemorrhage during this period of 3 years and they were of the following types:—

(a) Placenta Praevia, 122 cases. (Following Macafee's classification, vide *J Obstet. Gynaec.* 1945, 52,131; *Proc. R. Soc. Med.* 1946, 39,551.)

Types I and II .. 94 cases

Types III and IV .. 28 cases

(b) Accidental Haemorrhage, 55 cases as under:

Revealed variety 35 cases, i.e. 63.6%,

Mixed variety 12 cases, i.e. 21.9%,

Concealed variety 8 cases, i.e. 14.5%.

(c) Bleeding due to Cancer Cervix, Erosion, Polyp, etc., 8 cases.

(d) Undiagnosed 12 cases.

Clinically, the cases of placenta praevia could be considered under the following groups:—

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Group A. Cases where there was a history of repeated bleeding from early months of gestation, occurring near about the time when menstruation would have been due if the patient had not been pregnant. This continued until the attack of a serious haemorrhage in the last trimester and, according to Macafee, these cases belonged mostly to type IV of placenta praevia and a few to types II and III. These patients got exsanguinated at the first attack of profuse bleeding, and if there had been any delay in bringing them to the hospital it would have been extremely difficult to save their lives.

Group B. Cases where the bleeding started with the onset of labour. In this group also some had a severe bout of haemorrhage without any previous warning. All the four types were met with in this clinical variety, but types III and IV were much less in number.

Group C. In this group there was practically no serious bleeding, but the patient was admitted in the hospital with a ballotable head, which refused to settle down on to the pelvic cavity for no apparent reason, or with an abnormal presentation. A vaginal examination to elicit the cause of this abnormality revealed a placenta praevia. Type II placenta praevia in

a posterior situation was commoner in this group, and only very occasionally we met with cases of types III and IV.

The position of insertion of the cord, at the placental surface was as follows: central insertion in 48, at the upper end in 33, and at the lower end in 41. When the insertion of cord was at the upper end of placenta, the foetal life in utero was least jeopardised in head presentation.

Malpresentations were noticed in about 30% and a ballottable head in no less than in 65%.

Treatment.

The following line of treatment was followed in these cases:—

Our teaching and practice have always been to avoid undertaking any vaginal examination in a case of suspected placenta praevia, just for diagnosis only, if the bleeding was only slight. But unfortunately on a few rare occasions, such an examination had to be done due to the great difficulty in getting a proper history from some unintelligent and illiterate patients.

Opinions are, however, divided among obstetricians regarding the advisability of any vaginal examination in cases of placenta praevia.

DeLee States: "Under a good light the vagina is spread with a broad speculum and the cervix is inspected for erosion, varices, polyps and cancer. The fingers are passed through the cervix to feel the placenta."

Munro Kerr advises passing a blunt Hegar's dilator through the cervix and moving it about gently. If bleeding occurs then it is placenta praevia.

Marshall, on the other hand, states:

"I now omit vaginal examination in nearly all those patients whom I intend to deliver by caesarean section." He further states that the only conditions which are likely to be missed are cancer cervix, cervical polyp and ruptured vaginal varix.

Macafee holds that placenta praevia is not an obstetrical emergency which must necessarily be dealt with after the first brisk haemorrhage and that a vaginal examination must not be undertaken until the arrangements for the appropriate treatment have been made. He does not object to the passing of a speculum and inspecting the cervix in good light and with the utmost gentleness.

In our opinion, a vaginal examination may be made in a suspected case of placenta praevia only if the bleeding is severe or recurrent, but the time at which this examination is made must be chosen after good deliberation. Moreover, this must be carried out by the senior most obstetrician in charge, most gently, under light anaesthesia with full aseptic precautions and after keeping all arrangements ready at hand for necessary treatment and for resuscitating the devitalised patient.

Prior to the days of blood transfusion, the maternal mortality was very high. Now, however, as soon as we get a case, who had several bouts of bleeding and is quite anaemic, we immediately proceed to give blood transfusion. Usually we transfuse 200-300 c.c. of whole blood, fresh or stored, to the patient in the first sitting. Subsequent transfusion depends upon the progress and response of the case to treatment, whether bleeding occurs or not, etc.

But usually we keep 2 or 3 bottles of whole blood ready at hand for the patient. It has been our experience that about 68% of deaths are due to haemorrhage per se, and most of these could have been prevented by employment of measures directed to the immediate replacement of the blood volume already lost. In our series, with blood transfusion, the maternal mortality has been reduced to 2.46% as opposed to 15% during the days when blood transfusion was not employed as a routine. If for any reason whole blood was not available blood plasma, gum saline, or saline with glucose, etc. was substituted.

The Rh factor of mother is determined in every case of transfusion, as a routine, as she may require more than one transfusion subsequently, and thus prevent the chances of haemolysis of blood in a Rh negative mother, and also with a view to adopt measures if there be any suspicion of erythroblastosis foetalis.

If the bleeding stopped with perfect rest in bed and with sedatives, or if the bleeding was slight, no interference was made and the pregnancy was allowed to go to term. But the patient was kept under careful supervision all the time in the hospital. This naturally minimised foetal deaths due to prematurity to a great extent, and also lowered the maternal mortality and morbidity by avoiding too early interference in an exsanguinated patient.

The obstetric management of the case, unless complicated by gross disproportion or any other abnormality, depended on two principles, namely, either to compress the bleeding sinuses at the situation of placental separation by the presenting part

against the bony pelvis, or the quick emptying of the uterus by caesarean section.

The first principle of treatment was carried out in 94 cases, mainly belonging to types I and II and rarely in type III varieties of placenta praevia. This included the following techniques:—

- (1) Artificial rupture of membranes and application of a tight abdominal binder;
- (2) Application of Willett's scalp traction forceps and continuous weight traction;
- (3) External or Bipolar podalic version, bringing down a foot and weight traction.

We discarded cervico-vaginal plugging or application of the different varieties of rubber bags.

(1) Artificial Rupture of Membranes:

It was found to be the ideal method of treatment when good pains were present, when bleeding had not been severe and the os dilating in a type I placenta praevia. The results were excellent both for the mother and the baby, because it involved very little interference. Out of 38 cases treated by this method, the maternal mortality was nil and foetal death rate was only 2%.

(2) Scalp Traction by Willett's Forceps:

This was mainly followed in case of type II placenta praevia. The membranes were ruptured artificially and if the bleeding continued the instrument was applied on the baby's scalp through the partially dilated os.

Disadvantages in this method experienced were—

(a) It tore away from the scalp if the child was a premature one, and

later on produced cellulitis of the scalp in some cases.

(b) The continued application of pressure exerted by the head on the placenta by means of the forceps with its attached weight was detrimental to the life of the baby. This was noticed more significantly when the head was not properly flexed and the traction was applied on such a deflexed head.

(c) In many cases there occurred a haematoma on the foetal scalp, and in one instance there was subsequent infection with *Cl. Welchii*.

(d) It was difficult to apply Willett's forceps over the scalp of a dead foetus where skull bones underneath were crackling.

In every case of Willett's forceps application prophylactic penicillin, sulphonamides and anti-gas gangrene serum, were used. Lately, we somewhat restricted the use of Willett's forceps for reasons stated above. Out of 42 cases treated by this method there was only one maternal death but the foetal death rate was as high as 28%.

(3) External or Bipolar Version and bringing down a foot: This is a simple procedure and is usually successful as the baby is often small and premature. This method was adopted in cases of placenta praevia with malpresentation, e.g. transverse lie or prolapse of cord, etc. The maternal mortality was nil out of 14 cases but the foetal death rate was no less than 32%.

The second principle of treatment, namely, quick emptying of the uterus by caesarean section, was carried out in 22 cases belonging to types III and IV, and in 6 cases of type II, mostly with posterior situation of the

placenta. In these cases of the latter group, the cervix did not admit even a finger, although vaginal bleeding was free and there was definite non-engagement of head. Two cases of the first group ended in caesarean hysterectomy.

The lower uterine segment operation is preferred as there is a lesser risk of subsequent rupture of the scar, less chance of spread of any potential sepsis, better approach for controlling the bleeding sinuses and smoother post-operative convalescence. Mainly two drawbacks in treatment by this operation were noticed, namely, where the lower uterine segment was poorly developed, and where the cord was attached to the anterior edge of the placenta in close proximity to the incision on the lower uterine segment.

Caesarean hysterectomy had to be performed in 2 cases for uncontrollable post-partum haemorrhage, where uterus was in a complete atonic condition even after emptying the uterus by the section. In such circumstances a subtotal hysterectomy is preferred to the total variety, as the operation is much quicker, and also because the stump of the cervix acts as a fulcrum to support the vaginal vault and helps in securing the uterine arteries firmly. 2 mothers died who were admitted after serious blood loss at home, and the foetal death rate was 6% including the premature babies. Blood transfusion before, during and after the operation, and prophylactic penicillin were administered in every such case of caesarean section.

A discussion on the treatment of placenta praevia cannot be complete without mention about the manage-

ment of such cases in a remote village, far away from a hospital. Very often the necessary quick and safe transport is, unfortunately, not available in our country. The doctor in consultation along with any of his colleagues available nearby has to manage such cases in patient's own home to the best of his ability and as the circumstances allow.

The same principles of treatment as followed in an institution on arrival of the patient should be carried out, namely, administration of morphia, keeping the patient in perfect bed rest and not to interfere if the bleeding be slight. As whole blood, plasma or serum is often not available, resuscitation should be carried out with glucose saline or gum saline parenterally or by the rectal route.

Vaginal examination should be carried out most gently and with full antiseptic precautions, but only when bleeding is recurrent or severe. Simple rupture of membranes, tight abdominal binder and 2 or 3 units of pitocin repeated once or twice may be adequate to complete delivery in most cases of type I placenta praevia.

In cases of type II, this is not enough. Steady traction on scalp with a tenaculum forceps in vertex presentation (if Willett's forceps be not available) or the pulling down of a leg in a breech is often required to be done to control the bleeding. In

these cases we prefer external podalic version whenever possible and then to pull down a leg. This is fairly easy to perform as the presenting head is often not engaged and the half breech is a surer agent to control the blood loss. This is more applicable in cases of transverse or oblique presentation of the child.

In types III and IV, when interference is imperative, perforation of the placenta with a sharp instrument and then pulling down a leg after an external podalic version gives better result than Willett's traction on scalp through the opening thus made in the placenta.

Cervico-vaginal packing should be resorted to in exceptionally rare cases. This, however, is not recommended as this cannot be properly done single-handed in the patient's home, causes infection which may often turn out to be serious, and, moreover, it produces shock.

The patient should be carefully managed through the third stage of labour. All measures must be adopted to avoid further blood loss and shock. The loss of fluid should be replaced with saline and glucose. The lower uterine segment and cervix are common sites of tears or lacerations in cases of placenta praevia, and careful inspection should be made to exclude such trauma before post-partum haemorrhage is considered to be due to uterine atony.