

RETAINED PLACENTA

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This is a fairly frequent and frustrating condition, the incidence of which remains practically unchanged in spite of the various techniques employed in different institutions. While the methods of management of the third stage vary in some respects, the fundamentals remain the same in most of the clinics. Massage of the uterus and attempts to express the placenta, before separation of the latter, are considered to be basic factors in the causation of post-partum haemorrhage, and retention of the placenta. Whether oxytocics should be administered before or after the expulsion of the placenta is a matter of individual experience.

Shaw showed that by administering oxytocics at the end of the second stage the amount of blood loss is reduced but the incidence of third stage complications is increased. Retention of the placenta is frequently the last straw in the markedly pathologic labour causing further deterioration in the patient's condition. Haemorrhage, shock and sepsis are frequently associated, thus giving a high maternal morbidity and mortality. Generous quantities of blood and chemotherapy are important

factors in reducing the mortality.

In the Lady Hardinge Hospital from January 1945 to December 1950, the total number of deliveries numbered 8,646 and in the above period retention of the placenta occurred 95 times, giving an incidence of 1.09%. There were 8 deaths, the mortality figure thus being 8.42%. The latter is a very high and an appalling figure.

Goethals quotes a 10% mortality but the more recent authorities like Schwartz, Richards and Reid put it at 1.8% to 4.5%.

Sewall and Coulton have gone to the extent of calling manual removal of the placenta "a benign procedure" and believe that Crede's expression should not be tried as it causes shock. It is difficult to agree with the above statement and the existing high mortality and morbidity prompted a study of this complication.

Ante-natal Care. Careful observations and repeated examinations during the antenatal period are certainly of value. Attention should be directed to the patient's blood picture, gain in weight and foetal-pelvic relationships. In the above cases under review I have found that 54.36% of the cases came in as emergencies and often in very poor general condition. Many of the others

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just attended the clinic once or twice merely to register themselves. Excessive weight gain is often responsible for increased blood loss during labour.

Table I. No relevant information can be had as the condition appears to occur irrespective of age.

300 c.c., one pint being considered as the upper limit of the normal. Pastore holds that loss of blood should be considered in relation to the weight of the patient and argues that loss over 1% should be considered as abnormal. This holds true usually when the blood picture is

TABLE I

Age in Relation to Retained Placenta

Total	Below 20 Yrs.	21-30 Yrs.	31-40 Yrs.	Above 40 Yrs.
95	18	56	19	2

Table II. In this series the number of multiparae is 69 or 72.63%; Schwartz and Richards found an incidence of 57.1%. I cannot agree with them that this complication occurs more often in multiparae. The proportion of multiparae to primiparae in the total number of deliveries is 74.75 to 25.25. Hence the condition appears to occur irrespective of parity.

within the normal range. In this series, 27.3% of the cases were admitted with a haemoglobin level below 50% Sahli, and 69.74% could only boast of a haemoglobin below 60%. Stander, Plass and others have shown that haemodilution is associated with lowered specific gravity and an increased tendency to haemorrhage. Patients with low haemoglobin values cannot afford to lose

TABLE II

Parity and Retained Placenta

Total	Primi.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.	9th.	10th. & above
95	26	7	11	16	11	3	5	2	5	9

TABLE III

Haemoglobin Estimations and Retained Placenta. (Sahli)

Total	31-40%	41-50%	51-60%	61-70%	71-80% and above
95	9	17	40	24	5

Table III. From this table it is apparent that anaemia is a very common feature in a large proportion of cases. Normal blood loss as given by various authorities is between 200-

even small quantities of blood without going into shock. Lastly, uterine inertia and sepsis appear to aggravate the picture.

Table IV demonstrates that twelve

patients had other associated diseases which may be factors in deciding the ultimate issue. In some of these cases it is difficult to believe that manual removal was the fatal factor. From the above it is apparent that the standard of maternal nutrition is very low and is liable to vitiate the results.

TABLE IV

Associated Maternal Conditions

- (1) Toxaemias of pregnancy, 3.
- (2) Chronic pyelonephritis with hypertension, 1.
- (3) Advanced tuberculosis, 1.
- (4) Placenta praevia with antepartum haemorrhage, 3.
- (5) Hydramnios with pre-eclamptic toxemia, 1.
- (6) Hydramnios with anencephalic monster, 1.
- (7) Mitral regurgitation with stenosis, 1.
- (8) Diabetes with arteriosclerosis, 1.

Table V. Regarding duration of pregnancy, 25.25% of all the cases had a premature labour. This finding is in keeping with that of Pekham who found that retained placenta is very often associated with premature labour. The over-all incidence of prematurity in the lite-

rature is quoted between 7 and 9% of all labours.

TABLE V
Duration of Pregnancy

Pregnancy in weeks	No. of cases	Per cent
28-32 weeks	11	11.57%
33-36 "	13	13.68%
37-40 "	71	74.63%

TABLE VI

Duration of Labour

Hours in labour	No. of cases	Per cent
Below 10 hours	16	16.84%
11-20 hours	55	57.89%
21-30 hours	14	14.73%
Above 30 hours	10	10.53%

Table VI. From this it is possible to gauge the relationship between retained placenta and the duration of labour. From the above table we can see that 10.53% of the women had a labour lasting 30 hours or over. Aaberg and Reid found that in their cases fully 30% had a labour lasting over thirty hours. This finding is in agreement with that of most authors that retained placenta and prolonged labour commonly go hand in hand.

Table VII. The incidence of abnormalities in labour rises in cases of

TABLE VII

Type of Labour

Total	Normal		Abnormal		Delivered outside	
	No. of cases	Per cent	No. of cases	Per cent	No. of cases	Per cent
95	60	63.15%	24	25.26%	11	11.57%

retained placenta. In this series 25.26% of the labours were abnormal, while 11.57% delivered at home and were usually brought to the hospital in marked shock and exsanguination. There were three sets of twins and one set of triplets showing the association of multiple pregnancy with retained placenta. Breech labours also figured prominently in the series giving an incidence of 7.7%, which is again much higher than the normal. Analysing still further I found that the maternal morbidity figure ranged pretty high, i.e. 54.25%. In 10 patients with a labour of 30 hours or over, the morbidity rose to 78.29% showing the association of sepsis with prolonged labour. Most of these cases were not very ill though in two cases the patients ultimately died as it is not supposed to serve any useful purpose, but may actually conceal the continuing haemorrhage.

Blood Loss, (Table VIII). An attempt has been made to tabulate the cases in relation to the amount of

blood lost. As no accurate measurements of the blood loss have been done, the values are just taken approximately over 500 c.c. Hence it will be seen that in the large majority of our cases the reason for interference is haemorrhage. The latter, coupled with the absence of proper transfusion facilities, is largely responsible for the high mortality. In patients with such low haemoglobin values, as 30 to 50%, even haemorrhage below 500 c.c. is enough to induce a condition of shock.

Table IX. In this an attempt has been made to evaluate the patient's condition before interference is decided upon. The two patients who died with retained placenta have been excluded from this table. From this it is seen that 13.97% were in poor general condition as seen by blood pressure and pulse records. There were 3 deaths in these 13 cases giving a very high mortality figure, indicating that interference should not be undertaken till the patient has been resuscitated pro-

TABLE VIII
Blood Loss

Normal (below 500 c.c.)		Moderate (500-1000 c.c.)		Excess (above 1000 c.c.)	
No. of cases	Per cent	No. of cases	Per cent	No. of cases	Per cent
19	20%	47	49.47%	29	30.52%

TABLE IX
Condition before Interference

Good		Fair		Poor	
No. of cases	Per cent	No. of cases	Per cent	No. of cases	Per cent
53	56.98%	27	29.03%	13	13.97%

perly. In 53 cases with good general condition one death occurred due to abnormality in the placenta. The notes of the case are:

Case No. 1. P. R., 22 years old, para II, gravida 3, was admitted to the hospital with a pregnancy of 32 weeks suffering from anaemia and a diagnosis of contracted pelvis. Previous obstetric history was two caesarean sections with two children alive and healthy. Patient had a premature short normal labour and placenta was retained. After one hour's duration of the third stage, patient was put under general anaesthesia and manual removal tried. Placenta adherent to the old caesarean scar removed piece-meal. Blood loss up to 3 pints. Uterine cavity packed. Patient died before hysterectomy could be done. Inevitable delay in hunting for a donor hastened the end.

Still-birth and Neonatal Mortality.

There is a high incidence of still-born infants in this series, i.e. 42.0%, and 9 infants were lost due to various causes in the neonatal period, bringing the total foetal wastage to 51.00%. On analysis it is seen that this foetal loss is merely incidental and not the cause of retained placenta, as a large number of the deliveries were premature or difficult

obstetric operations. There were a total of 100 infants born to 95 mothers, and only 49 of these were discharged well.

TABLE X
Placental Abnormalities

Placenta accreta	2
Placenta praevia	3
Placenta succenturiata	1
Bilobed placenta	1
Circumvallate placenta	1
Oedematous placenta with infarcts	1

Table X. This table shows that in 8 out of 93 placentae abnormalities could be detected macroscopically. As no microscopic examinations were performed it is not possible to discuss the pathology in detail.

Placenta Accreta. In the total number of 8,646 cases this condition occurred twice. One case is already cited above and in the second the condition was recognised early and the patient treated with a supravaginal hysterectomy with a favourable result. In quite a few cases, however, the operation notes indicated that there were areas of focal or partial placenta accreta. That this condition exists there is no doubt at all and may be responsible for the serious difficulty and extensive blood loss experienced in the removal in some cases.

TABLE XI
Management

Expression		Manual removal		Hydraulic method		Hysterec-tomy		Retained	
No. of cases	Per cent	No. of cases	Per cent	No. of cases	Per cent	No. of cases	Per cent	No. of cases	Per cent
18	18.94%	71	74.73%	3	3.15%	1	1.05%	2	2.10%

Management (Table XI). Here an attempt has been made to demonstrate the lines of treatment with regard to the cases. There were 71 manual removals in a total of 95 cases, which required intervention. Usually, Crede's expression is always given a chance before the operation of manual removal is undertaken and in quite a few cases an oxytocic drug was administered and expression tried under anaesthesia. This procedure is, however, only possible in cases where the general condition is fair and haemorrhage not very excessive. Eighteen patients responded to this treatment and the general condition improved rapidly with the expulsion of the placenta. There was no death in the series.

Four cases were tried by the hydraulic method, known as the Majon-Gabaston method. Three cases responded and one was terminated as a manual removal. 300 to 500 c.c. of sterile saline was injected into umbilical vein with a blunt cannula. No shock or complication accompanied this method of treatment.

Bradley treated 13 cases with this method in his series with a success of 69.2%. The drawbacks of this method are that it cannot be employed in cases with profuse bleeding or when the patient is badly shocked.

Manual removal was performed in 71 cases with 6 deaths giving an incidence of 8.45%. This operation was performed 71 times in 8,646 patients giving an incidence of 0.82%. The usually quoted figure is 1%. Quite a few of these cases were admitted completely exsanguinated and in a very poor general

condition, after delivery had been conducted at home. The midwife, usually goes on procrastinating and doing repeated and violent efforts at expression thus adding to the shock and haemorrhage.

Two patients died with retained placenta because their condition did not permit of any interference. These were both in irreversible shock and as attempts at resuscitation did not revive them, operation would certainly not have saved them.

One patient was treated with hysterectomy of the supravaginal type.

Discussion. From the foregoing it is obvious that our general hospitals still show a very high mortality in cases of retained placenta. It is very necessary that a definite line of treatment should be chalked out in these cases. Primarily, antenatal blood picture should be corrected and brought within the normal range. Early removal of the placenta should be undertaken before shock has supervened. This is especially important in institutions where there is no means of replacing the blood lost. It has also been seen that the operation in itself is fairly safe provided the patient is in good general condition. Where retention is the main cause for interference not much is gained by prolonging the third stage over one hour. Vant has been able to show that blood loss increases directly with the duration of the third stage with few exceptions. A steady trickle of blood may often create an erroneous impression unless the loss is accurately measured. Sheehan states in his paper that

retention of the placenta over one hour is attended often by severe shock even when the bleeding is normal. A study of these patients does not prove the above statement. In fact the findings are, that in perhaps more than one case intervention was too early. In all these cases with associated shock it is very imperative that shock be treated first. Blood pressure appears to be most reliable in gauging the condition of the patient.

Stewart and Crawford showed that in impending shock the diastolic pressure first rises with a corresponding lowering of the pulse pressure and this is followed by a gradual fall in both systolic and diastolic pressures, the low figures sometimes developing with great rapidity. Quite commonly, means of transport are poor and inadequate and the patient comes into the hospital with very poor readings, but these usually come up with sedatives, heat and transfusions. Then, normally, there is again some fall of blood pressure attendant upon the anaesthesia and the operation. Here I will cite only two examples of retained placenta with shock, for lack of space.

Case 1. K.D., 20 H.F., primipara, admitted in the surgical department with extensive burns and full-term pregnancy. Patient was in severe shock and went into labour. Normal delivery, placenta retained. No bleeding, pulse thready, B.P. not recorded. Placenta retained for 26 hours, at the end of which blood pressure was 96/64. Placenta removed manually with a few whiffs of ether with favourable result.

Case 2. L.D., 18 H.F., admitted with leaking membranes and 32 weeks' pregnancy, primipara with haemoglobin of 26%, albumin and generalised oedema. Normal premature labour, placenta retained. Condition unsatisfactory. No bleeding. Blood transfusion given. Condition improved after 14 hours of retention of the placenta. Expression tried. Successful. Patient discharged, no morbidity.

Usually such patients are kept on a half-hourly pulse and blood-pressure chart and when the blood-pressure is between 90-100 mm. Hg. systolic and the pulse pressure not less than 30 mm. Hg., then the operation is carried out. The waiting period is likely to be very much shortened if quantities of blood are available. In these emergencies Group 'O' blood, Rh negative if possible, should be transfused from the bank without any delay. The delay necessitated in securing a donor and doing the necessary cross-matching often produces an unfavourable ending.

Summary and Conclusions.

1. This is a review of 95 cases of retained placenta with a mortality of 8.42% and an incidence of 1.09% in 8,646 deliveries.
2. Primiparae and multiparae are equally affected.
3. The high incidence of anaemias and low maternal nutrition have been discussed.
4. Retained placenta is associated with prematurity, abnormal labour, haemorrhage and sepsis.
5. Management and different

modes of treatment have been outlined.

6. A blood bank is an essential requisite for reducing the morbidity and mortality.

7. Interference should be delayed till the patient has recovered from shock.

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