PLACENTA ACCRETA

(A Review of cases from the Journal of Obstetrics and Gynaecology of India and 3 case reports)

by

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Introduction

Placenta accreta is an abnormal adherence of the placenta, due to the chorionic villi which penetrate deeply to be in direct contact with the myometrium. According to Eastman (1966), in placenta increta the chorionic villi penetrate the uterine muscle, while in placenta percreta the villi penetrate the entire thickness of the uterine wall, reaching serosa and sometimes rupturing into the peritoneal cavity. Munro Kerr calls placenta increta one in which the chorionic will make contact with, but do not invade the myometrium. The classification is done by microscopic examination. Clinically, whenever one cannot find a plane of cleavage between the placenta and the uterine wall, it is called an adherent placenta or placenta accreta. Placenta accreta is of two types, namely complete and incomplete.

The condition being rare, it is difficult for one person to have a large experience and therefore it was thought that a pooled experience of many authors may give a better picture of the condition.

With the liberalisation of abortions in India the incidence of curettage in early pregnancy will increase in all our hospitals. Placenta accreta being a condition in which a history of previous curettage is important, it would be interesting to note if any change in the incidence of placenta accreta occurs between now and 10 years later.

All the cases of placenta accreta reported so far in the Indian Journal of Obstetrics and Gynaecology are collected and compiled here. Analysis is done to highlight the clinical and pathological aspects of this rare condition.

A short summary of three cases which were seen at Nowrosjee Wadia Maternity Hospital are given at the end. Table I shows the reported cases and the names of the authors.

The cases reported by us were seen over two years 1970 to 1971.

Review of the case reports of Placenta Accreta

Incidence: This being a rare condition, the incidence varies between 1 : 540 to none : 70,000. Focally adherent variety, which is not reported often, is likely to be more common. Cunningham (1942) reported 1 : 16,000 deliveries, Bruke (1942) 1 : 5,332 deliveries, Eastman none : 20,000 deliveries and Diamsi (1963) 1 : 748 deliveries as the incidence.

As seen in Table I, in India we have a higher incidence than in U.S.A. and U.K. The other conditions which also have the

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TABLE I

Total Number of Cases Reported in India

Name of the author	Year	No. of cases	Incidence
1. Bhagat	1971	2	
2. Bhagoji	1967	2	1 : 28,184
3. Chatterji	1963	1	1 : 6,660
4. Ghosh	1963	2	1 : 4,500
5. Gupta	1971	1	
6. Gogoi	1968	5	1 : 2,246
7. Deshmukh	1963	3	
8. Patil	1966	1	
9. Paranjothi	1955	1	
10. Swami	1965	2	1 : 1,313
11. Yagnic	1971	1	None : 20,000 (over 7 years)
12. Present series	1970-71	3	1 : 6,483
	Total	24	

abnormal penetrating powers in the chorionic villi is vesicular mole. It is known that vesicular mole is very common in our country. One is tempted to suggest that there may be some aetiopathological link between the two conditions.

Age and Parity: Mean age and the parity was found to be 29 years and 4.8 respectively. Thus, it appears from this that the condition is related to parity more than the age of the patient.

The incidence was higher in cases with a previous caesarean, curettage, manual removal of placenta and with multiparity. This is due to an increased amount of fibrous tissue which results from a previous trauma to the gravid uterus. Fibrous tissue is known to interfere with the formation of the decidua. Decidua normally forms a barrier against the invading trophoblast and if decidua is deficient, it may lead to deeper penetration of villi (Table II).

Mode of presentation of cases: Table III shows modes of presentation.

TABLE III

Modes of Presentation of Cases

Modes	Number of cases
Antepartum haemorrhage	9
Retained placenta	13
Presented as normal cases	2
Total ..	24

TABLE II

Incidence of Previous Interference

Author	% of previous curettages	% of previous M. R. P.	Previous caesarean
1. Dyer	—	22	—
2. Luke	28	20	43
3. Miller	33	19	—
4. Present series	—	35	20

Prolonged third stage of labour is the commonest way in which these patients present. Antepartum haemorrhage is another frequent mode of presentation. Rarely it may be found at a caesarean totally unexpectedly. Bleeding occurs when placenta is partially separated. If the placenta is completely adherent no haemorrhage is encountered. In one case the adherent placenta was found when caesarean was done for foetal distress. In the second case caesarean was done for a previous caesarean and cephalopelvic disproportion.

Maturity: Begneaud in 1965 reported a case of placenta accreta in an abortion of 6 weeks. In the present analysis, 18 out of 23 cases delivered at term. All the babies were obviously normal and did not have any congenital deformities. One baby had intrauterine growth retardation syndrome.

In about 35% of cases there was a previous history of manual removal of the placenta. In about 20% a previous caesarean section had been done.

Toxaemia was commoner in these patients. 30% of cases in this series had toxaemia.

Treatment:

The sequence of events that followed were similar in most of the cases. Pitocin drip, intravenous methergin, cord traction, Crede's expression, etc. were tried before it was realised that the placenta was adherent. Manual removal was tried, only to be given up when no plane of cleavage was found. In a few unfortunate events manual removal was persisted with. Once the condition was diagnosed an abdominal subtotal hysterectomy was undertaken.

Delivery interference interval varied between half an hour to 13 hours. When the interval was shorter it was accompanied by lesser shock. Table IV shows different types of treatments given to the patients.

TABLE IV

Treatment Procedures Carried Out

Treatment	Number of cases
Methergin, pitocin drip, Crede's expression, cord traction, etc.	12
Manual removal attempted but failed	12
Bits of placental tissue removed	6
Packing of uterus done after partial removal of the placenta	2
Immediate curettage	—
Subtotal abdominal hysterectomy	15
Lower segment caesarean for antepartum haemorrhage	8
Caesarean done for some other indication	2
Part of placenta left in situ (at caesarean and at manual removal)	5
Whole of placenta left in situ	0

Removal of placenta in Bits: This was done in 6 cases. The procedure produced much shock and haemorrhage. Out of these 6 cases, three died due to irreversible shock. This proves that one should resist the temptation of removing the placenta piecemeal when an adherent placenta is found.

Packing of the Uterus: In two cases the uterus was packed after partial removal of the placenta to prevent haemorrhage. In one case the packing was done during caesarean for adherent placents to check haemorrhage which was removed later. No immediate curettage was done in any of the cases.

Subtotal Abdominal Hysterectomy: This is the best treatment available for adherent placentae. This procedure, though looks radical, brings about much better results in terms of maternal mortality and morbidity than any other line of treatment. In 15 cases hysterectomy

was done. Our observations tally with Hertig's findings. He reported a maternal mortality of 56.4% while reviewing 86 cases from the literature, when an incomplete manual removal was followed by hysterectomy. There were no deaths when only hysterectomy was done. Cunningham (1942) had done vaginal hysterectomy for this condition. He performed a vaginal hysterectomy in 36% of cases. In 6% he did abdominal hysterectomy with an overall mortality of 36%.

Caesarean Done for Antepartum Haemorrhage: This was done in 8 cases. It was only at the operation that the condition was diagnosed.

Caesarean Done for Some Other Indication: In one case caesarean was done for foetal distress and uterine inertia. In the other case, previous caesarean and cephalopelvic disproportion was the indication for caesarean.

Placenta Left in Situ: In 1945, Kaltreider reported seven cases where placentae were left in situ. In this series no such treatment was done. In 3 cases bits of placenta were removed and rest of the placenta was left in situ. All these patients recovered fully. Foul lochia and fever were seen during the puerperium in these cases.

Complications:

Table V shows the complications seen with placenta accreta cases.

TABLE V

Complications

Complications	Number of cases
Shock-mild to moderate	10
- Severe	9
Rupture of uterus during manual removal	1
Inversion of uterus	2
Spontaneous rupture of uterus during labour due to penetrating placenta	1

Some degree of shock was present in most of the patients. This was due to haemorrhage and manipulations. Severe degree of shock was present in 9 cases out of which 4 died. Rupture uterus occurred in two cases, while attempting the removal of placenta. In these cases a persistent attempt was made to remove the adherent placenta. Inversion of uterus occurred in two cases while doing a manual removal of placenta. Hysterectomy was done in both the cases. Inversion was not corrected before removing the uterus. Das in 1940 analysed 391 cases of spontaneous inversion and found that in 75% of cases it was adherent and located over the region of the fundus. In the cases where spontaneous rupture of the uterus occurred during labour, hysterectomy was done.

TABLE VI

Incidence of Inversion and Spontaneous Rupture of the Uterus

Author	% of inversion of uterus	% of rupture of the uterus
Miller	14.3	7
Kaltreider	4.1	15
Stone	41.0	—
Present series	8.0	4

Maternal Mortality: There were four maternal deaths. Out of these four deaths, in three cases, the piecemeal removal of the placenta and the resultant shock and hamorrhage contributed greatly in causing the irreversible shock. Hertig reported 5.5% mortality in his cases. In cases where incomplete removal of placenta was done, the mortality was 56.4%. Similarly, Cunningham reported a mortality of 70%, while reviewing the literature, when treatment other than hysterectomy was carried out.

Foetal Outcome: In 5 cases there was a premature delivery. The smallest size baby was delivered in a case where pregnancy was only of 28 weeks. Prematurity rate was about 20%. Nineteen babies were discharged in good condition. One baby was macerated stillbirth. Three babies were born asphyxiated and died within 24 to 39 hours. One baby was dysmature at birth but was discharged in good condition.

Pathology: In majority of the cases the placenta was found to be larger than normal. It was considerably thinned out. It occupied most of the uterine cavity. Miller (1954) showed increased incidence of placenta membranacia in all the series reported till then. Due to the thinned and spread out nature, the placenta frequently encroached the lower segment. Kistner (1952) reported higher incidence of placenta praevia in cases of placenta accreta. Seven cases out of 25 in the present series (28%) had placenta praevia.

Out of 18 cases where the placenta was situated in the upper segment, in six cases it was attached to the fundus. This fundal attachment contributes towards increased tendency of the uterus to invert. Presence of excessive amounts of fibrous tissue was noted in 13 placentae. Histopathology confirmed excessive fibrous tissus in 8 cases. In one case, the fibrous feel of the placenta on vaginal examination led to difficulty in recognition of the placenta. Thus, when a placenta appears abnormally fibrous on vaginal examination, one should keep the possibility of an adherent placenta in mind.

Microscopic Examination: Absence of any decidual tissue on histopathological examination was present in almost all the cases, where a microscopic study was done. Out of 25 cases in 15, microscopic study was made. The trophoblastic elements were seen to be in direct contact with the myometrium. The myometrium was invaded by the trophoblastic tissue to a variable extent. In some cases stroma showed collagenous material which was at places undergoing hyaline change. Excessive amounts of fibrous tissue were seen in the stroma. No evidence of inflammation or degeneration was found in the placenta. Dilated sinusoid spaces with haemorrhage were reported in some cases.

Comments

1. Placenta accreta is a rare condition. The authors suggest that incidence may increase in subsequent years due to liberalisation of abortions.

2. Maternal mortality in cases of placenta accreta could be reduced to a considerable extent, if hysterectomy is done as soon as the condition is diagnosed. One should not attempt manual removal of placenta, etc. in this condition. Diagnosis of the condition in time and a prompt treatment would go a long way in reducing maternal mortality.

3. Postabortal infections should be guarded against in all the abortion cases.

4. The study indicates that there is an increased incidence of prematurity and intrauterine growth retardation with

placenta accreta, which may be due to placental insufficiency.

Summary

1. Twenty-four cases of placenta accreta are analysed in this paper.
2. Incidence in our cases was 1 : 6,483.
3. All the cases were detected when the placenta did not separate.
4. Maternal mortality was 17 per cent.
5. Hysterectomy was the treatment of choice in most of the cases.

Case Reports

Case 1

An 18 year old primipara, who had a large bout of painless and causeless bleeding, was admitted with severe anaemia and toxaemia. Blood pressure taken on admission was 100/60 mm. of Hg. There was a generalised anasarca and the urine was loaded with albumin. Foetal heart sounds were well heard and were normal. Patient was kept on the expectant line of treatment since she had completed only 32 weeks. Patient was transfused with one bottle of packed cells. Eight hours after, she was taken up for a caesarean section since she had another bout of bleeding. At the operation placenta was found in the lower segment and was morbidly adherent. After the delivery of the baby, an attempt was made to separate the placenta from the thinned out lower segment. This resulted in tearing off of the lower segments in bits. There was lot of bleeding during this time. The lower segment was sutured and abdomen was closed. Patient was given 1400 ml. of blood. She died due to irreversible shock, six hours after the operation. Autopsy was not performed since the cause of death was obvious.

Case 2

A 28 year old 2nd para was admitted with nine months' amenorrhoea and labour pains. She was in a good general condition. A routine per vaginum examination was made when she did not progress well. Cervix was found to be two fingers loose. A fibrous and soft mass was felt on the right side of the head. She started bleeding profusely before the examination could be completed. She was immediately taken up for a caesarean section. At the beginning of the operation blood pressure was not recordable and the pulse was rapid and feeble. She was transfused with 1750 ml. of blood, during and after the operation. Placenta was found to cover practically whole of the uterine cavity. No plane of cleavage could be found between the placenta and the uterus. Subtotal hysterectomy was performed. She recovered fully and was discharged after 10 days.

Gross appearance: Placenta covered practically the whole of the uterine cavity. It was thin and fibrous. There was no demarcation between the placenta and the uterus.

Microscopic appearance: Trophoblast was seen invading the myometrium deeply. There was a lot of fibrous tissue around the chorionic villi. There was no plane of cleavage between the placenta and the uterus.

Case 3

A fifth gravida delivered normally at term. She had a retained placenta, for which a manual removal was underaken. It was found that the placenta was adherent to the uterus in most parts. Part of the placenta was removed piecemeal and more than half of the placenta was left in situ. Patient had a lot of bleeding during the procedure, hence 700 ml. of blood was given. Bleeding stopped when the manipulations were stopped. No intrauterine packing was done since there was no bleeding. Post-operatively, she had profuse amount of foul lochia and fever for two weeks. She also passed bits of tissue resembling placenta during the period. She was kept on antibiotics during this time. Patient went home after 20 days. Uterus was about 10 weeks size at the time of discharge.

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