PLACENTA ACCRETA

(Case Report)

PREM GUPTA,* M.S. AND SHIVAJI BANKER YADAV,** D.P.B. (Bom.)

Placenta accreta is an uncommon condition. The incidence of placenta accreta quoted by different authors varies. Aaberg (1945) reported 1 in 1900 deliveries, Irving and Hertig (1937) in 1956 deliveries, Cunningham (1942) 1 in 16,000 deliveries and Burke (1951) 1 in 5,332 deliveries. Friesen (1961) stated that the incidence of placenta accreta lay between 1 in 2,000 deliveries. Miller (1959) estimated that the combination of placenta praevia and placenta accerta occurred in 20 per cent of all cases of placenta accreta. The variation in the reported incidence may be due to several reasons. Partial placenta accreta may be overlooked in some cases of manual removal of placenta, which could have been detected on histological examination. There are other groups of cases where the placenta is removed in pieces. These cases actually belong to the category of placenta of morbid adhesion. According to Aaberg and Reid (1945), the cases who had delayed haemorrhage in the puerperium or were later on diagnosed as placental polyps were, perhaps, cases of placenta accreta.

Pathology

Normally, the placenta is separated from the uterine musculature by the intervening decidua. The placenta separates in spongy layer of the decidua and the separation is easy and complete. But rarely, the placenta may be so adherent to the wall of the uterus that it is impossible to separate it even with the hand in the uterus because no plane of cleavage such as is normally present in decidua spongiosa (the postage stamp layer) can be found. This condition is called placenta accreta. It seems to be common in placenta praevia and to be due to poor development of the decidua. It may be partial or complete. Placenta accreta is divided into three varieties. Fully formed chorionic villi in direct contact with the muscle bundles of the uterine walls (placenta accreta). Chorionic villi present between the muscle bundles, (placenta increta). Chorionic villi penetrate the uterine muscle completely to ramify on the exterior of the uterus (placenta percreta).

The microscopical findings are that the decidua, especially, decidua spongiosa, is partially or completely absent at the site of placental adherence. The villi are seen to lie directly in contact with muscle fibres. In some areas, the villi are seen to penetrate into the uterine muscle. In placenta percreta these may be seen perforating through the serosal covering. Hyaline and granular degeneration around the villi and in the surrounding muscle fibres is also present. Fibrinoid degeneration was reported by Kishner *et al* (1952).

The aetiology is confusing. It is a condition that occurs in some patients due to the existence of some inborn or acquired

*Reader in Obst. & Gynec.
**Lecturer in Path. & Bact.
Dr. V. M. Medical College, Sholapur.
Received fo rpublication on 7-8-1970.

factor. It has been suggested that this condition may be initiated by injury to the endometrium (curettage, caesarean section and previous manual removal of placenta). Novak and Woodruff (1962) found on examining the decidua vera the old scar with or without implantation. Presence of round cells and plasma cells suggests chronic infection, this being of some aetiological significance in some cases.

Case Report

Mrs. L. R., 36 years old, para 4-0, was admitted as an emergency in Railway hospital, Sholapur, at 8 A.M. on 10-1-70 with the history of retention of placenta following a spontaneous vaginal delivery at home 10 hours earlier at 40 weeks. A doctor of that locality tried manual removal of placenta but failed. There was severe bleeding. Patient became unconscious and was then brought in a shock to the above hospital.

On Examination

General condition poor with marked pallor. Pulse = 230/mt volume and tension poor. BP = 70/?. Temp = 99°F. Heart and Lungs, no abnormality detected. Fundus at the level of umbilicus. Uterus well contracted. Vaginal bleeding slight. No vaginal examination was done on admission.

Management

Blood transfusion and an intravenous saline drip with noradrenaline was started. At about 2 P.M. the B.P. was maintained at 100/60 mm hg. At 3 P.M. vaginal examination under general anaesthesia was done. Placenta was found completely adherent to uterine wall. A gentle separation of the placenta was tried but failed. An abdominal operation was immediately decided upon. Subtotal hysterectomy was performed. She developed shock during operation, but made a gradual recovery after increasing the dose of noradrenaline and giving more blood. Apart from slight pyrexia the post-operative was uncomplicated and she was discharged on 10th day of operation.

Pathological Report

Description of Specimen: Uterus was opened by a vertical incision in the anterior wall. The whole of placenta was attached in the upper uterine segment to right antero-lateral wall and was firmly adherent. The uterine wall was quite thin in this area.

Microscopical Examination: The decidua was deficient and the trophoblast was seen in direct contact with the muscle fibres. The villi in some places were seen penetrating the whole uterine wall. No round cell and plasma cell infiltration was seen. Dilated sinusoids and haemorrhages were also seen.

Discussion

Previous trauma such as, vigorous curettage is attributed to be the cause of decidual deficiency. Shotton (1944) and Koutsky (1958) have reported this aetiological factor in 2 cases of their series. Previous uterine infection, puerperal, post-abortal or as part of generalised infection of the genital tract, has been reported by James and Misch (1955) and on the contrary Miller (1959) ruled out infection as a cause in his series.

Previous caesarean section is also taken into account as the probable aetiological factor. In one of Miller's (1959) series, the placenta was adherent to the lower uterine segment scar.

There is a reported high incidence of previous manual removal of placenta in these cases. Dyer *et al* (1954) reported incidence of 22 per cent and 19 per cent by Miller (1959). The patient reported, here had also manual removal of placenta in her last two pregnancies. This may be due to focal areas of adherence itself. Trauma and infection caused by manual removal of placenta may be playing a part in causation of placenta accreta in a future pregnancy.

Other aetiological factors that are taken into account are radium implantation

which may have been done for the treatment of menorrhagia and presence of fibroids, (Koutsky, 1958). Cases of concurrent placenta praevia and accreta are sometimes met with and an incidence of 15 per cent was reported by Irving and Hertig (1937) and Miller reported an incidence of 21.4 per cent. Miller (1959) expressed his view about the aetiological factor that it may be hormonal in origin.

As regards the diagnosis of placenta accreta, it is one of the causes of retained placenta, characterised if manual removal of placenta fails or placenta is removed in bits. In complete variety there is no bleeding unless a forcible manual removal or separation is tried. Cases are sometimes diagnosed during caesarean section.

As regards the complications, perforation of the uterus and haemorrhage during attempt at manual removal is a frequent and grave complication. Cases of spontaneous rupture of uterus have been reported by Miller (1959), Burke (1951), Stone *et al* (1952). These cases of spontaneous rupture of uterus are likely in placenta percreta variety. Uterine inversion is another complication which has been reported by Miller in 14.3% cases and Kaltrieder (1945) in 4.1 per cent of their series. This may result from cord traction in a case of placenta accreta specially when the placenta is attached to the fundus.

As regards the management, hysterectomy still holds good in cases of placenta accreta once diagnosis is made. The hysterectomy done is usually a subtotal one but when the placenta is adherent to the cervix, a total hysterectomy is indicated. Though, cases have been reported where conservative treatment has been tried taking into account the fact that the placenta may get absorbed gradually, or may be expelled later. But in these cases, the maternal mortality and morbidity rate is very high. Dorsett (1933) compared the results of immediate radical, delayed radical and conservative treatment. The cases, where conservative treatment was done, had a stormy post-operative period. Cunningham (1942) reported the maternal mortality to be 70 per cent in patients treated by manual removal with or without uterine tamponade, 36 per cent where vaginal hysterectomy was done, and 6 per cent where abdominal hysterectomy was performed.

Summary

A case of placenta accreta has been reported, probable aetiological factors, diagnosis, complications and management have been briefly discussed.

Acknowledgement

My thanks are due to Dr. Raman M.D., D.M.O. Railway Hospital, Sholapur, for permission to publish this case record.

References

1. Aaberg, M. E. and Reid, D. E.: Am. J. Obst. & Gynec. 49: 368, 1945.
2. Burke, F. J.: J. Obst. & Gynec. Brit. Emp. 58: 473, 1951.
3. Cunningham, John F.: J. Obst. & Gynec. Brit. Emp. 49: 149, 1942.
4. Dyer, I., Miller, M. K. and Melabrin, J. P.: J. Louisinan St. Med. Soc. 12: 106, 1954.
5. Dorsett, E. L.: Am. J. Obst. & Gynec. 25: 274, 1933.
6. Friesen, R. F.: Ganad. Med. Ass. J. 84: 1247, 1961.
7. Irving, F. C. and Hertig, A. T.: Surg. Gynec. & Obst. 64: 178, 1937.
8. James, D. W. and Misch, K. A.: J. Obst. & Gynec. Brit. Emp. 62: 551, 1955.
9. Kaltrider, D. F.: Ball. Sch. Med. Univ. Maryland. 30: 1, 1945.
10. Kistner, R. W., Hertig, A. T. and

Reid, D. E.: Surg. Gynec. & Obst. 94: 141, 1952.

11. Koutsky, J.: Gynaecologia, Basel. 146: 399, 1958.
12. Miller, W. G. J.: Obst. & Gynec. Brit. Comm. 66: 353, 1959.
13. Novak, E. R. and Woodruff, J. D.: Novak's, Gynec. & Obst. Path. ed. 5, Philadelphia & London, 1962, W. B. Saunders Co., p. 532.
14. Shottan, D. M. and Taylor, C. W.: J. Obst. & Gynec. Brit. Emp. 51: 340, 1944.
15. Stone, M. L., Donnenfeld, A. M. and Tauz: Am. J. Obst. & Gynec. 68: 925, 1954.