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Case Report

Obstetrics and Gynaecology Section

Placenta Percreta in First Trimester Leading to Disseminated Intravascular Coagulopathy (DIC): A Rare Case Report

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ABSTRACT

Placenta percreta is the most severe form of abnormal placental attachment. It is a variant of placenta accreta in which chorionic villi penetrate the entire thickness of the myometrium through the uterine serosa and may involve the adjacent structures. Literature review shows very few cases encountered during the first trimester of pregnancy. A-20-year-old woman with previous one cesarean section presented with continuous vaginal bleeding beginning after incomplete abortion at seven weeks and six days period of gestation for which she underwent dilatation and curettage. MRI revealed irregular heterogeneous signal intensity mass with large area of hemorrhage in lower anterior wall extending towards the endometrial cavity suggestive of morbid adherent placenta. Following continuous bleeding after repeated curettage for retained, adherent placenta her coagulation profile got deranged and DIC developed. Correction of coagulopathy and emergency hysterectomy as a life saving measure for placenta percreta was done in our case.

Keywords: Dilatation and curettage, Hysterectomy

CASE REPORT

A 20-year-old female gravida two, para one with prior one cesarean section presented with complain of bleeding per vaginum. She gave history of spontaneous abortion at seven weeks and six days period of gestation, following which patient underwent dilatation and curettage in another hospital in view of incomplete abortion. After the procedure bleeding decreased in amount but patient began to actively bleed after few days. On admission to our hospital her vitals were stable, os was open and moderate amount of vaginal bleeding was noted. Her hemoglobin was 10.8 mg/dl.

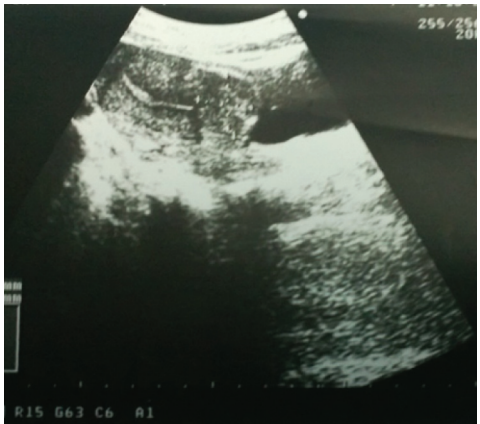
Patient was taken for repeat dilatation and curettage. After the procedure the patient continued to bleed on and off. Ultrasonography [Table/Fig-1] was done which was suggestive of 2.5 × 2.5 cm mixed echogenic area in anterior wall of uterus.

MRI was done which suggested irregular heterogeneous signal intensity mass with large area of hemorrhage in lower anterior wall extending towards the endometrial cavity of size 27×20 mm suggestive of morbid adherent placenta. After one week patient began to profusely bleed and symptoms and signs of DIC began to appear. Her hemoglobin decreased to 8 mg/ dl. Her coagulation profile became deranged. Prothrombin time (PT -26 seconds), Partial Thromboplastin Time with Kaolin (PTTK -40 seconds) and International normalized ratio (INR-1.7) were raised. Fibrin Degradation Product (FDP) and D Dimer were found to be positive. In view of uncontrolled bleeding and deteriorating vitals patient was prepared for emergency laparotomy. After obtaining written consent subtotal hysterectomy was done. During hysterectomy, placenta was found to be densely adherent to the lower uterine segment extending upto serosa [Table/Fig-2]. Hysterectomy specimen was sent for pathological examination.

Patient was monitored intensively in the postoperative period. Four units of fresh frozen plasma and three units of whole blood were transfused. Her postoperative course was uneventful and patient was discharged on fifth postoperative day. The final pathological examination revealed that the chorionic villi had invaded the entire myometrium up to the serosa, confirming the diagnosis of placenta percreta [Table/Fig-3].

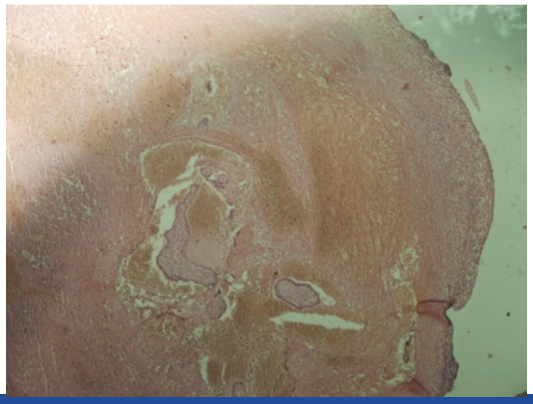
DISCUSSION

Placenta percreta is defined as an abnormal adherence of placenta to the uterine wall secondary to total or partial absence of the decidua basalis. The incidence of accreta has increased from one in 30,000 to one in 2500 in the past 50 years, which is attributable to



[Table/Fig-1]: Ultrasonographic image showing 2.5 × 2.5cm mixed echogenic area in anterior wall of uterus

[Table/Fig-2]: Anterior surface of hysterectomy specimen showing placenta percreta



[Table/Fig-3]: Showing chorionic villi invading the entire myometrium (10X, H&E stain)

increase in the rate of cesarean deliveries. Approximately, 5% of the cases with abnormal placentation consist of placenta percreta [1].

Literature shows very few cases of placenta percreta in early pregnancy. Monks et al., described a case of woman with previous three cesarean sections with incomplete abortion at 10 wk of gestation presenting with heavy bleeding. Failed response to control bleeding by conservative measures necessitated hysterectomy. Later histopathological analysis revealed a placenta percreta [2]. Höpker et al., reported a case at 10 wk gestation presenting with lower abdominal pain. Molar pregnancy was suspected on ultrasonography, for which dilatation and curettage was performed, which resulted in severe hemorrhage. Heavy bleeding occurred that could not be managed even after uterine artery ligation, necessitating abdominal hysterectomy. Pathology revealed placenta percreta [3]. Balkani et al., reported another case of a woman with previous cesarean section at seven wk gestation presenting with excessive vaginal bleeding beginning immediately after termination of pregnancy. Hysterectomy had to be undertaken in view of failure of any relief from hormonal treatment and curettage. Histologic examination was suggestive of placenta percreta [4]. Papadakis and Christodoulou described a similar case presenting as first trimester fetal demise. The patient required an emergency hysterectomy to control the bleeding after uterine curettage, and was complicated by severe consumption coagulopathy as in our case [5]. Other cases reported in literature belong to higher gestational age.

Placenta accreta is difficult to diagnose in first trimester, detection rate and accuracy are lower in first trimester when compared to third trimester. In majority of cases, placenta accreta is discovered during or after vaginal delivery or Cesarean section, or after abortive curettage, when excessive and uncontrollable hemorrhage occurs [6]. Diagnostic imaging techniques recommended for the evaluation of placental invasion include—Doppler Sonography, gray-scale sonography, and magnetic resonance imaging (MRI) [7]. Gupta et al., reported a case of placenta percreta at 17 wk complicated by DIC which was caused by extensive hemorrhage and consumptive coagulopathy [8].

All the cases reviewed above, required hysterectomy. Placenta percreta induced uterine rupture may be managed conservatively, uterine curettage and packing, adjuvant chemotherapy, and bilateral uterine vessel occlusion are some of the options that have been reported [9]. Total hysterectomy is required in the case of life-threatening severe bleeding not responding to above measures [10].

Thus, the case of placenta percreta leading to disseminated intravascular coagulopathy (DIC) is a very rare complication in first trimester. Literature review revealed only a few other cases of placenta percreta occurring in first trimester of pregnancy.

CONCLUSION

The case of placenta percreta in first trimester leading to DIC reported here represents a very rare complication of early pregnancy. A search of literature shows very few such cases encountered during the first trimester of pregnancy. Therefore patients of previous cesarean section presenting with continuous bleeding after first trimester spontaneous or incomplete abortion should be suspected and thoroughly investigated to rule out placenta percreta. Any medical complications like DIC, as in present case, must be simultaneously corrected. Hysterectomy may be the best treatment option in cases of life threatening bleeding, as was done in our case.

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