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Case Report

Placental abruption at 18 weeks of gestation: a rare case report

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ABSTRACT

Placental abruption is one of several notable obstetrical entities that may be complicated by massive and sometimes torrential hemorrhage. Hypovolemic shock is caused by maternal blood loss. Delayed or incomplete treatment of hypovolemia with severe placental abruption can cause acute kidney injury, disseminated intravascular coagulation. Placental abruption is most commonly seen after 24 weeks of pregnancy and it is very rare before 20 weeks of pregnancy. Here, we report a case of life-threatening placental abruption at 18 weeks of gestation.

Keywords: Placental abruption, Hypovolemic shock, Acute kidney injury, Disseminated intravascular coagulation

INTRODUCTION

Separation of the placenta either partially or totally from its implantation site before delivery is described as abruptio placenta. Placental abruption is initiated by hemorrhage into the decidua basalis. The decidua then splits, leaving a thin layer adhered to the myometrium. Subsequently, the process begins as a decidual hematoma and expands to cause separation and compression of the adjacent placenta.¹ Approximately 0.4-1% of pregnancies are complicated by placental abruption.²

Placental abruption is one of several notable obstetrical entities that may be complicated by massive and sometimes torrential hemorrhage. Hypovolemic shock is caused by maternal blood loss. Delayed or incomplete treatment of hypovolemia with severe placental abruption can cause acute kidney injury, disseminated intravascular coagulation.¹

Placental abruption is most commonly seen after 24 weeks of pregnancy and it is very rare before 20 weeks of pregnancy.³ Here, we report a case of life-threatening Placental abruption at 18 weeks of gestation.

CASE REPORT

A 22 years primigravida at 18 weeks POG presented in casualty with complaint of heavy bleeding per vaginum for 9 hours, soaking all her clothes and associated with clots. She also gave history of headache and facial puffiness 15 days back for which she took some treatment which was not documented and she was referred from a hospital for further management. On examination, general condition was very poor, facial puffiness present, pallor was 3+, icterus absent, bilateral pedal edema of grade 1 was present, pulse rate was 108/min, blood pressure (BP) 100/56 mm of Hg, afebrile, respiratory rate (RR)-18/min, SpO₂-98% on room air, respiratory system (R/S)- bilateral fine crepitations were present, cardiovascular system (CVS)- S1, S2 heard normally. On per abdominal examination – uterus was 28 weeks' size, tense, tender, FHS could not be localized. On per speculum examination, vagina was filled with clots and cervix was visualized with difficulty and seems to be closed.

Patient was then shifted to high dependency ward for further management. Meanwhile, blood and blood products were arranged and investigations were sent. Bedside ultrasound was suggestive of intrauterine fetal

demise of approximately 16 weeks 3 days POG with placenta on posterior segment, low lying and query abruptio placenta. Suddenly, patient started to bleed profusely which made any further examination impossible and patient was hemodynamically unstable with PR 124/min hypovolemic, BP – 89/50 mm of Hg. Cross matched packed red cell was started on flow and decision for hysterotomy was taken for life threatening obstetrical haemorrhage. Investigations were suggestive of hemoglobin (Hb)- 3.2 gm%, total leucocyte count (TLC)-10,230/cumm, P65L31M2, 1.99 lakhs platelet count. Coagulation profile, liver and kidney function tests were within normal limits. Patient was operated under general anaesthesia. Intraoperatively, liquor was completely blood stained. Placenta was on posterior surface, low lying, not covering the os. Abortus of weight 350 grams was delivered and few clots were removed from the uterine cavity. Also, uterine tone was achieved intraoperatively with medical management using Syntocinon, misoprostol and carbaprost. During the OT, massive transfusion was done. 3 PRBC and 4 FFP were transfused and patient was then shifted to ICU with Glasgow coma score – E₁V₁M₁ where 2 platelets were transfused. Next day, her Glasgow coma score started to improve and 1 more unit of PRBC was transfused. The following day, patient was extubated and shifted to post-operative room and was managed symptomatically. On postoperative day 4, after 5 PRBC, 4 FFP and 2 platelet transfusion, patient achieved Hb 10.1 gm%, TLC- 8280/cumm. Her general condition was fair and she was discharged from the hospital in satisfactory condition. Her histopathology report of placenta was suggestive of preterm placenta with marked intraplacental haemorrhage.



Figure 1: Abortus delivered by hysterotomy.

DISCUSSION

Placental hemorrhage is one of the obstetrical emergencies which leads to poor maternal and fetal outcomes. Most women with a placental abruption have sudden-onset abdominal pain, vaginal bleeding, and uterine tenderness though the symptoms and signs may be different in different women. Some may present with torrential hemorrhage while some may present with concealed haemorrhage. Massive hemorrhage may result in complications like consumptive coagulopathy,

hypovolemic shock, acute kidney injury, couvelaire uterus (extravasation of blood into the uterine musculature and beneath the serosa). Couvelaire uterus is an intra operative finding. Diagnosis of placental abruption cannot be completely made on ultrasonography as in our case. Sonography has limited use because the placenta and fresh clots may have similar imaging characteristics. Treatment of a woman with placental abruption depends on period of gestation, fetal status and maternal hemodynamic stability. When the fetus is viable and living and vaginal delivery is not imminent, or if mother has profuse hemorrhage leading to hemodynamic instability an emergency caesarean section is indicated, otherwise vaginal delivery is preferred.

There are only a few case reports of placental abruption at less than 20 weeks of pregnancy. Out of these Toshihiko et al and Bhoomika et al had to perform hysterotomy after initial conservative management at 17 weeks and 18 weeks of pregnancy respectively due to maternal hemodynamic instability and excessive vaginal bleeding.^{4,5} While Danner et al performed dilatation and evacuation after maternal stabilization.⁶ In our case decision was taken to proceed to emergency hysterotomy directly as patient had torrential vaginal bleeding along with hemodynamic instability.



Figure 2: Preterm placenta with marked intraplacental haemorrhage.

CONCLUSION

Placental abruption before 24 weeks of gestation is very rare. It is a diagnosis made based of clinical signs and symptoms rather than based on laboratory investigations or ultrasonography. As in our case, placental abruption occurred at a very early gestation of 18 weeks which was revealed type with massive haemorrhage and life threatening too.

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