BMH MEDICAL JOURNAL

BMH Med. J. 2021;8(3):128-131. **Case Report**

Placental Abruption Leading to Hemosalpinx: A Rare Presentation

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Keywords: Hemoperitoneum, abruption, shock, pregnancy

Introduction

A spontaneous hemoperitoneum during the second or third trimester is a rare event but potentially life threatening to both mother and fetus. At the same time, both its certain diagnosis and the identification of its cause are difficult. Hemoperitoneum in pregnant women appears in its most standard form as acute abdominal pain, sometimes accompanied by maternal shock, depending on its volume. Diagnosis during pregnancy is difficult because of its low prevalence and its nonspecific clinical findings.

Spontaneous hemoperitoneum may mimic placental abruption having similar clinical presentation like acute abdominal pain, shock and fetal distress or death. Diagnosis of the cause becomes difficult because both obstetric and non-obstetric causes must be considered and because computed tomography and magnetic resonance imaging are used less often during pregnancy. The speed of diagnosis and timely surgical intervention with appropriate volume replacement is a key element in maternal and fetal outcome.

We present a case of spontaneous hemoperitoneum in third trimester of pregnancy and its objective is to share our experience in managing this emergency condition though rare in pregnancy and all the diagnostic dilemmas we had during this case management.

Case report

A fifth gravida with previous four full term normal vaginal deliveries with last child birth over a decade back, with no notable medical or surgical history, was referred to our centre at 36 weeks of gestation with complaints of acute abdomen for 2 hours without any history of trauma or bleeding.

On examination, she was drowsy and very pale, propped up position on O_2, blood pressure

was 60/36 mm Hg and pulse rate was 132/min on nor-adrenaline support. Abdomen was tense and tender (no e/o woody rigidity s/o abruptio placentae), fetal heart sounds could not be localised with a hand held Doppler. No evidence of vaginal bleeding was seen during the speculum examination. A digital cervical examination showed cervix was soft, mid position, 50% effaced, internal os 2 finger, membrane present, vertex at -3 station (after ruling out placenta previa).

Risk stratification done as high risk and multidisciplinary approach undertaken. Antepartum hemorrhage (APH) drill protocol was adopted (IV access, bladder catheterised, blood samples sent, cross match done). Bedside USG to rule out abruptio placentae showed no evidence of retro-placental clots and fetal cardiac activity was absent. Counseling to the patient and bystanders about the likely diagnosis of APH and its guarded prognosis was done. Investigations were done especially the coagulation profile in view of impending disseminated intravascular coagulation (DIC), came back as normal. Strategy was planned to terminate the pregnancy by emergency caesarean section in view of deteriorating maternal condition (hypovolemic shock) after obtaining high risk informed written consent. Risk and complications like DIC, intra op complications, need of hysterectomy, ventilator support, intensive care admission, multiple blood component transfusions etc including the possibility of death on table was explained.

Under general anesthesia after inserting a central line, emergency laparotomy was done using midline infraumbilical incision.

Intra op finding of massive hemoperitoneum of 1500 ml dark colored altered blood with 500 gms of clots was observed. Enlarged gravid uterus, pink in color with no evidence of any concealed abruption, with no abnormal tortuous uterine vessels but with tortuous Fallopian tubes dripping blood.

Caesarean section was done and delivered a fresh stillborn female baby weighing 2900 gm. Placenta was pale with minimal retro-placental clots amounting to 150 ml with depressed maternal surface of placenta. Total placental weight was 590 gms, with total cord length of 48 cm ruling out short cord.

Whole abdomen was explored in a clockwise manner including liver spleen, bowel, and appendix however no bleeding source was found even after rigorous search.

Since no source could be found and no active bleeding was seen, abdomen was closed after drain kept in situ. Post op patient was shifted to intensive care unit and extubated the very next day. Total 3 units of packed red blood cells, 3 units of fresh frozen plasma and 4 units of platelet concentrate was transfused. Post op period was uneventful except for mild gaseous distension in view of paralytic ileus and she was discharged after 1 week.

Discussion

Placental abruption is a well-known obstetric accident and a life-threatening emergency. A report that the standard clinical triad combining vaginal bleeding, abdominal and pelvic pain, and uterine hypertonia is found in only approximately 10% of cases [1] explains the diagnostic difficulties. Hemoperitoneum in pregnant women appears in its most standard form as acute abdominal pain, sometimes accompanied by maternal shock, depending on its volume. At the same time, both its certain diagnosis and the identification of its cause are difficult. The onset of hemoperitoneum during the second and third trimesters can reveal a voluminous placental abruption.

This diagnosis must be considered among the obstetric causes of hemoperitoneum, especially

when imaging also shows an intrauterine hematoma, to avoid a delay in diagnosis that could have major consequences on both fetal and maternal morbidity and mortality. In this case report, the context and clinical picture at admission nothing about its appearance suggested placental abruption. It was neither concealed, with no features of couvelaire uterus, nor revealed bleeding per vaginum/blood stained liquor on ARM.

Can it be through tubes? It was a Dilemma!

Diagnosis of the cause is also difficult because both non-obstetric causes like aneurysms of the splenic artery or vein, spontaneous rupture of the liver or spleen, hematologic causes (coagulopathy) [2-5] & obstetric causes like rupture of dilated uterine vessels (varices) [6,7] rupture of a uterine artery aneurysm [8] an unscarred uterus [9] especially in women with endometriosis [10] and placentation abnormalities (such as placenta percreta) [11] must be considered. The appearance of hemoperitoneum made the diagnosis still more difficult, for this clinical feature has never, to the best of our knowledge, been described in the literature in association with placental abruption. In view of the fundo-posterior position of the placenta, very near to the uterine tube, blood may have tracked into the abdominal cavity. This backflow may have prevented the complete detachment of the placenta and thus may have enabled favorable outcome if timely diagnosis was done. To our knowledge, only 1 case of hemoperitoneum associated with placental abruption has been reported. This is the 2nd case of placental abruption revealed by hemoperitoneum with backflow through the tubes in literature and 1st case in Indian context to the best of our knowledge.

Conclusion

The speed of diagnosis and timely surgical intervention with appropriate volume replacement is a key element in maternal and fetal outcome. Possibility of such rare presentation should also be kept in mind while managing acute abdomen in third trimester.

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