Chronic abruption in early second trimester mimicking partial mole - A rare case report

Swati Agrawal, Kanika Chopra, Pikee Saxena, Bharti Singh, Shilpa Pimparkar

From [1]Department of Obstetrics and Gynaecology, Lady Hardinge Medical College, New Delhi, India

Correspondence to: Kanika Chopra, Department of Obstetrics and Gynaecology, Lady Hardinge Medical College, India. E-mail: Kank2kanu@yahoo.co.in

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ABSTRACT

Placental abruption is known as one of the most serious complications in pregnancy with detrimental effect on both the mother and the fetus. The clinical presentation and the ultrasound findings of this condition vary to a large extent as can be depicted from our case report. We report a rare case of a 30-year-old, G3P2L2 at 4 months of gestation, who presented with the complaints of dark altered bleeding along with pain lower abdomen for 1 day. Ultrasound findings were a dead fetus of 19 weeks 2 days with diffusely enlarged placenta with multiple cystic areas suggestive of intrauterine demise with partial mole. This case report is important as chronic placental abruption in the second trimester is rare, and a high index of suspicion is imperative to differentiate it from other conditions such as partial mole.

Key words: *Chronic abruption, partial mole, second trimester*

Placental abruption occurs in around 0.4–1% of pregnancies and is defined as premature separation of the placenta before the delivery of the fetus and in most cases after 20 weeks of gestation [1,2]. It is a major cause of maternal and perinatal morbidity. The perinatal mortality rate is about 10% being associated with preterm delivery in 30% cases [1]. The separation of placenta compromises its function, and thus the exchange of the gases and nutrients to the fetus, thus compromising the fetus. The consequences of placental separation strongly relate to the degree of placental abruption. The maternal risks involved are excessive blood loss leading to hypovolemic shock, requiring multiple blood transfusions, renal failure, multiorgan failure, adult respiratory distress syndrome, and even death [3].The fetal risks include low birth weight, preterm birth, prematurity, hypoxia, asphyxia, and even death [4,5]. Some of the most common high-risk factors are tobacco smoking, cocaine use, hypertension, multifetal gestation, abdominal trauma, preterm rupture of the membranes, and history of abruption. Abruption can be partial, complete, acute, and chronic.

Diagnosis of this condition is mostly clinical with ultrasound having just 50% sensitivity [6]. Acute abruption is seen as hyperechoic on ultrasound, and chronic abruption is seen as isoechoic after 3–7 days, in 1–2 weeks, it is hypoechoic, and after 2 weeks, it is anechoic [7]. The most common symptoms associated with the third trimester abruption are maternal hemorrhage, tense uterus, fetal distress, and coagulopathy, but less intensity of these symptoms is more so commonly seen throughout the pregnancy. As signs and symptoms and also sonographic findings are highly variable, and so the diagnosis of placental abruption requires a high degree of suspicion, so that appropriate plan of management can be done as in our case.

CASE REPORT

The patient was a 30-year-old, gravid 3, para 2, live 2 at 4 months of gestation, unbooked, presented with complaints of altered bleeding per vaginum, not associated with clots, soaking 2–3 pads per day for 8 days. There was a history of leaking per vaginum for 8 days associated with mild pain abdomen for 1 day. There was no history of abdominal trauma. There was no history of fever or cough. She had regular menstrual cycles with normal flow. She had previous two normal vaginal deliveries and both were uneventful. There was no significant past and family history.

On examination, her vitals were pulse rate 140 beats per minute, blood pressure 140/80 mmHg, and respiratory rate 28 per minute, spo2 2.98% and her axillary temperature was 101° Fahrenheit. The patient had marked pallor. Her chest examination revealed bilateral basal crept and cardiovascular examination was normal except tachycardia. On per abdominal examination, fundal height was 30 weeks with raised basal tone, fetal parts were not palpable and fetal heart sound was not audible by stethoscope. On per speculum examination, cervical os was closed with minimal dark altered blood and paravaginal examination revealed a closed, uneffaced, and firm cervix.

Ultrasound was done and findings were a dead fetus of 19 weeks and 2 days with a diffusely enlarged placenta, with multiple cystic areas within, with no internal vascularity and liquor of 7 cm suggestive of intrauterine fetal demise with partial

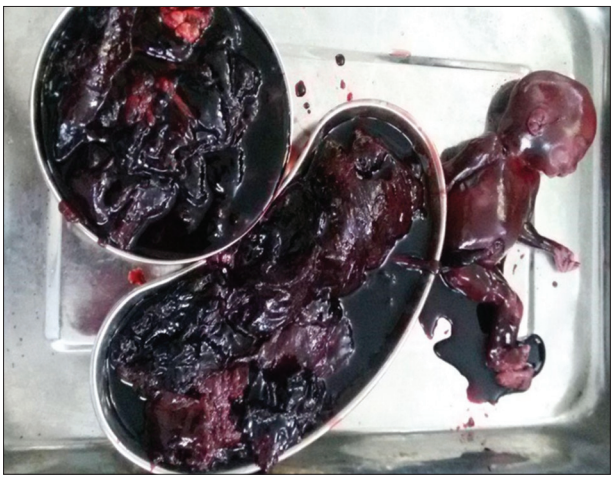

Figure 1: Macerated fetus with retroplacental blood clots

mole. Laboratory investigations showed hemoglobin 4.5 g%, total leukocytes 25,500/mm^3, platelet count 353,000/mm^3, mean corpuscular volume 89.5, mean corpuscular hemoglobin (MCH) 29.4, MCH concentration 32.8, international normalized ratio 1.06, and liver function test and kidney function test were within normal limits. Her electrocardiogram, chest X-ray, and blood gas analysis were normal. Beta-human chorionic gonadotropin was 50 mIu/ml. A provisional diagnosis of chronic placental abruption with severe anemia and lower respiratory tract infection was made based on clinical finding. The patient was started on injectable antibiotics and 3 units of blood were transfused under furosemide cover.

Once her hemoglobin rose to 6.7 g% and the patient was clinically better, decision for starting induction was taken. The patient was given 2 doses of 50 micrograms of misoprostol vaginally, 4 h apart as per the vaginal findings of closed, uneffaced cervix. Following this, artificial rupture of membranes was done; oxytocin was started and titrated according to the contractions. All these attempts failed to dilate the cervix and patient was eventually taken up for hysterotomy. Peroperative findings showed a grossly enlarged couvelaire uterus, foul-smelling scanty liquor, with a macerated fetus of 200 g and retroplacental blood clots of 1.8 kg (Figure 1). There was mild atonic postpartum hemorrhage but was controlled with oxytocics. The patient was given 2 units of blood transfusions intraoperatively. Gradually, her chest infection improved and on post-operative day 3, her hemoglobin was 8.7 g%, total leukocyte count 9600/mm^3, and platelet count 258,000/mm^3. She started having stitch line discharge from day 4 and developed burst abdomen on day 8 of surgery. Daily dressings were continued along with the antibiotics as per her pus culture sensitivity reports and were resutured on post-operative day 27. The patient was discharged in a stable condition after complete stitch removal on post-operative day 41 on oral hematinics.

DISCUSSION

Chronic abruption is usually due to venous bleeding in the periphery of the placenta leading to the formation of hematoma. The most common symptom in these patients is external bleeding which is usually intermittent [8]. Thus, this may be one of the reasons for the patient like in our case not reporting to the health center on time. The clinical manifestation of chronic ischemic placental disease develops over time such as oligohydramnios, fetal growth restriction, and pre-eclampsia. Furthermore, there exists a risk of preterm premature rupture of membranes. Abruption in the second trimester is accompanied by high rates of fetal death. On ultrasound, it presents as retroplacental hematoma, which appears isoechoic in majority of the cases and can be many times confused with thickened placenta.

Partial moles are triploids and are usually 69XXX, 69XXY, or 69XYY. These are usually misdiagnosed as complete mole, twin pregnancies, and hydropic abortions. More so, partial moles are usually associated with intrauterine demise. Sonographic features in these cases are a fetus which may or may not be viable, amniotic fluid is present but may be reduced, and the placenta appears enlarged with cystic spaces known as Swiss cheese pattern, and also there is the presence of increased echogenicity of chorionic villi. Similar findings may be present in cases with chronic abruption oligohydramnios sequence as is the case in the present patient, where an incorrect diagnosis of partial mole was made on ultrasound.

Nagashima *et al*. [9] reported a 31-year-old, primigravida, carrying monochorionic twin pregnancy who had complaint of leaking per vaginum at 26 weeks 5 days of gestation. Her hemoglobin at presentation was 9.8 g% with normal coagulation. At 27 weeks 0 day, per speculum examination revealed blood mixed with liquor. Ultrasound showed a 25 mm hematoma like echoic lesion in the periphery of the placenta. External bleeding from chronic abruption was diagnosed and the patient was kept on conservative management. At 27 weeks 3 days, her hemoglobin level decreased to 5.7 g% and the size of hematoma increased to 65 mm. The patient was taken up for emergency cesarean section and intraoperatively, a hematoma was observed and she was diagnosed as a case of chronic abruption. Aoki *et al*. [10] reported six conservatively managed patients with chronic abruption in whom median extension of pregnancy was reported to be 18.5 days. As in this case, conservative management was planned but could not be extended in view of falling hemoglobin level. It was concluded that in patients with chronic abruption after preterm rupture of membranes expectant management is difficult and usually requires termination of pregnancy.

In a case reported by Mellisa *et al*. [11], a 30-year-old patient presented at 30 weeks of gestation. Despite all her normal fetal monitoring, a routine ultrasound was suggestive of a large retroplacental sonolucent area. A planned cesarean section was performed 2 days later, despite normal daily fetal monitoring, because the size of mass was seen to increase in size. Placental pathology confirmed the diagnosis of chronic abruption. Hence, it was concluded that ultrasound may establish the diagnosis of abruption relevant in the clinical management of the patient. Nyberg *et al*. [7] did a study including 57 women who had evidence of placental abruption over a period of 4 years at the

university hospital of Washington. 33 presented before 20 weeks of gestation and 24 patients presented after 20 weeks. Hematomas were hyperechoic in 17 cases, hypoechoic in 21 cases, and sonolucent in 19 cases, depending on the duration of hemorrhage. Nine cases of placental abruption were probably misdiagnosed on the initial sonogram. Primary diagnosis was succenturiate lobe of placenta in three cases, uterine myomas in three cases, chorioangioma in two cases, and coexisting molar pregnancy in one case. In each of these cases, a repeat sonogram showed a resolving hematoma, and thus helped in establishing the correct diagnosis.

CONCLUSION

We conclude that although ultrasound is an important modality in making a definitive diagnosis in antenatal patients with bleeding per vaginum, it can be misleading as well. Therefore, a clinician should be familiar with all conditions which may be responsible for the patient's symptoms and should evaluate the patient critically keeping all the differential diagnosis in mind. Chronic placental abruption in the second trimester is a rare entity, but it can be potentially life-threatening. Hence, a high index of suspicion is needed to make a diagnosis and manage the patient promptly for a favorable patient outcome.

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