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Case Report

Expectant management of chronic abruption-oligohydramnios sequence in a resource-limited setting: a case report

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ABSTRACT

The chronic abruption-oligohydramnios sequence (CAOS) is a rare obstetric condition that may follow a prolonged clinical course. We report the case of a 30-year-old woman who delivered a live newborn at Sainte-Thérèse Hospital in Hinche, 34 days after an ultrasound detected a retroplacental hematoma at 29 weeks and 4 days of gestation. The patient presented with vaginal bleeding accompanied by hypogastric and sacrolumbar pain. Initially hospitalized for preterm labor, a retroplacental hematoma was then detected on ultrasound. Two days later, she was readmitted for severe preeclampsia complicated by placental abruption, and a conservative approach was adopted. On day 32 of hospitalization, she delivered via cesarean section under spinal anesthesia. Despite the complication, the patient had a good outcome. This case illustrates that expectant management may be considered in cases of abruptio placentae that are likely to become chronic, even in a rural, resource-limited setting.

Keywords: Abruptio placentae, Placental abruption, Chronic abruption, Case report, Retroplacental hematoma, Chronic abruption-oligohydramnios sequence

INTRODUCTION

Placental abruption occurs in 0.6% to 1.2% of pregnancies and is generally an acute event requiring emergency care.[1,2] However, in rare cases, placental abruption may follow a more insidious course, referred to as the CAOS. This condition is characterized by recurrent vaginal bleeding and progressive oligohydramnios, and ultrasonographic evaluation may reveal a retroplacental hematoma.[3] Patients with this condition are at increased risk of perinatal and neonatal complications.[4] Consequently, consensus regarding optimal management remains lacking, particularly in resource-limited settings. In selected cases, expectant management with close maternal and fetal surveillance may prolong pregnancy and improve neonatal outcomes. No such cases have been reported in the Haitian medical literature. Here we reported a case of CAOS managed expectantly for 34 days at Sainte-Thérèse Hospital in Hinche, Haiti, resulting in favorable maternal and fetal outcomes.

CASE REPORT

This is a 30-year-old patient, nulliparous, gravida 2, with a history of abortion. She first consulted the emergency department of the obstetrics and gynecology unit at Sainte-Thérèse Hospital in Hinche due to light vaginal bleeding accompanied by hypogastric and sacrolumbar pain that had been developing for about ten hours. The patient had no particular medical or surgical history. Based on the date of her last menstrual period, she was 28 weeks and 2 days pregnant. She did not use tobacco or drugs. Apart from the information provided in her medical history, the functional examination of her organs was unremarkable. Her vital

signs were generally reassuring, with blood pressure at 110/80 mmHg, heart rate at 97 beats per minute, respiratory rate at 20 cycles per minute, body temperature at 36.3°C, and oxygen saturation at 100%. The conjunctivae were pink and the lips and oral cavity were well hydrated. Cardiac and pulmonary auscultation was normal. The abdomen was distended longitudinally, with a uterine height of 26 cm and two uterine contractions recorded every ten minutes. The fetal heart rate was 152 beats per minute. Cervical examination revealed 2 cm dilation and 30% effacement.

On the same day, a transabdominal ultrasound performed in the department showed a breech presentation, a grade I anterior placenta, sufficient amniotic fluid, and an estimated fetal weight of 1207±181 gm. She also had an external ultrasound report dating back 72 days, indicating an estimated gestational age of 18 weeks and 4 days, a fetal weight of 222 g, no visible fetal abnormalities, an anterior placenta, and amniotic fluid within normal limits.

The patient was hospitalized for five days for suspected preterm labor. During this period, she received tocolytic treatment with nifedipine (30 mg orally as an initial dose, then 10 mg every 4 hours until contractions stopped), corticosteroid therapy with dexamethasone (6 mg intramuscularly every 12 hours for 48 hours), neuroprotection with magnesium sulfate (24 g diluted in 1 liter of Ringer's lactate, administered as a continuous infusion over 24 hours), as well as antibiotic prophylaxis with azithromycin (1 g orally) and ampicillin followed by amoxicillin (ampicillin 2 g IV every 6 hours for 48 hours, followed by amoxicillin 500 mg orally every 8 hours for 5 days). On discharge, her blood pressure was 132/92 mmHg but there were no other abnormal signs or symptoms.

Six days after discharge, the patient returned due to a recurrence of light vaginal bleeding, which had started approximately three days earlier. She brought a new ultrasound report, performed outside the hospital one day after the bleeding resumed, indicating an estimated fetal weight of 1087 g, a grade I anterior placenta, and the presence of an oval, hypoechoic and heterogeneous image in the marginal retroplacental area at the lower pole, measuring 8.7×4.1 cm, consistent with a retroplacental hematoma (Figure 1).

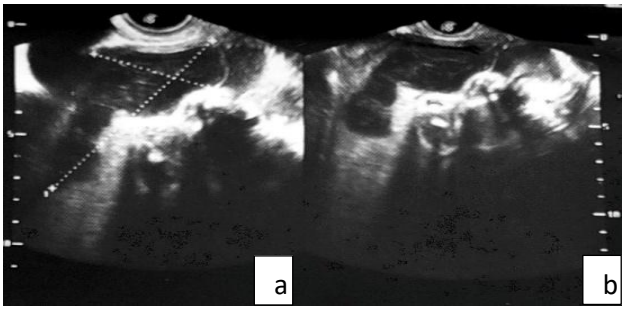

Figure 1 (a and b): Images of retroplacental hematoma.

The amniotic fluid was described as cloudy but sufficient in quantity, and the umbilical cord had three vessels.

During the functional review of her systems, she reported headaches. The physical examination noted high blood pressure at 151/105 mmHg, a heart rate of 76 beats per minute, no uterine contractions, and a fetal heart rate of 153 beats per minute. A diagnosis of severe pre-eclampsia complicated by grade I abruptio placentae at 29 weeks and 6 days of amenorrhea was made, warranting readmission to the hospital.

After discussion with the patient, a conservative management protocol was adopted, with the aim of delivering at 34 weeks of amenorrhea, under rigorous clinical and paraclinical supervision. She received a new course of magnesium sulfate to prevent seizures (14 g loading dose: 4 g in 250 cc of 0.9% NaCl IV over 20 minutes, combined with 10 g IM, followed by 5 g IM every 4 hours for 24 hours). Blood pressure was managed by administering alpha-methyldopa (500 mg orally every 8 hours).

On day 5 of this second hospitalization, the cervix was dilated to 1 cm and effaced to less than 30%. During this readmission, no loss of amniotic fluid or significant vaginal bleeding was reported or observed during clinical evaluations.

Several ultrasounds were performed during the second hospitalization. The assessment on day 3 of hospitalization showed an irregular oval image, marginal inferior retroplacental and partially subchorionic, hypoechoic and heterogeneous, with some small anechoic and hyperechoic areas, slightly Doppler-enhancing, measuring 8.68×6.66×3.28 cm; thus, the image corresponded to a retroplacental hematoma (Figure 2). Amniotic fluid was reduced, and fetal weight was estimated at 1262±189 g. On day 5 of hospitalization, the image of the retroplacental hematoma described above was similar (Figure 3). On day 14 of hospitalization, the size of the hematoma appeared to have decreased (Figure 4), and on day 16 of hospitalization, the subchorionic portion of the hematoma appeared hyperechoic (Figure 5). On day 31 of hospitalization, the size of the hematoma had decreased considerably (Figure 6). The fetus was in breech presentation. All fetal cardiotocographic assessments showed category 1 tracings (Figure 7).

During this second period of hospitalization, the main complaints were intermittent small amounts of blackish vaginal bleeding and mild hypogastric or lumbar pain. Seven blood counts were performed, one during the first hospitalization and six during the second period of hospitalization. Hemoglobin varied between 10.3 and 11.4 g/dl, hematocrit between 30.6 and 34.2%, and platelets between 214,000 and 306,000/µl. Two serum creatinine tests, 20 days apart, gave results of 0.74 mg/dl and 0.60 mg/dL, respectively (Table 1). The patient's blood type is A Rh positive.

The patient gave birth by cesarean section at 34 weeks and 3 days of amenorrhea, under spinal anesthesia. The preoperative diagnosis was severe pre-eclampsia complicated by chronic abruptio-oligohydramnios sequence, with breech presentation. During the procedure, a FIGO type 6 uterine myoma measuring approximately 3×3 cm was observed on the posterior wall (FIGO: International Federation of Gynecology and Obstetrics). Myomectomy was not performed. After delivery, two old-looking, chocolate-brown blood clots were found. One, retroplacental marginal, measured approximately 8×8×2 cm with a small blackish portion; the other, subchorionic, measured 6×6×2 cm and had detached from the first (Figure 8). These observations correlated with the ultrasound images documented during pregnancy.

No anesthetic complications were noted, and the intraoperative outcome was favorable. The newborn, a male, weighed 1400 g at birth. He had an Apgar score of 7 at one minute and 8 at five minutes before being transferred to the pediatric ward for neonatal evaluation. During hospitalization periods, the patient's systolic blood pressure ranged from 110 to 178 mmHg, and her diastolic blood pressure ranged from 60 to 116 mmHg (Figure 9).

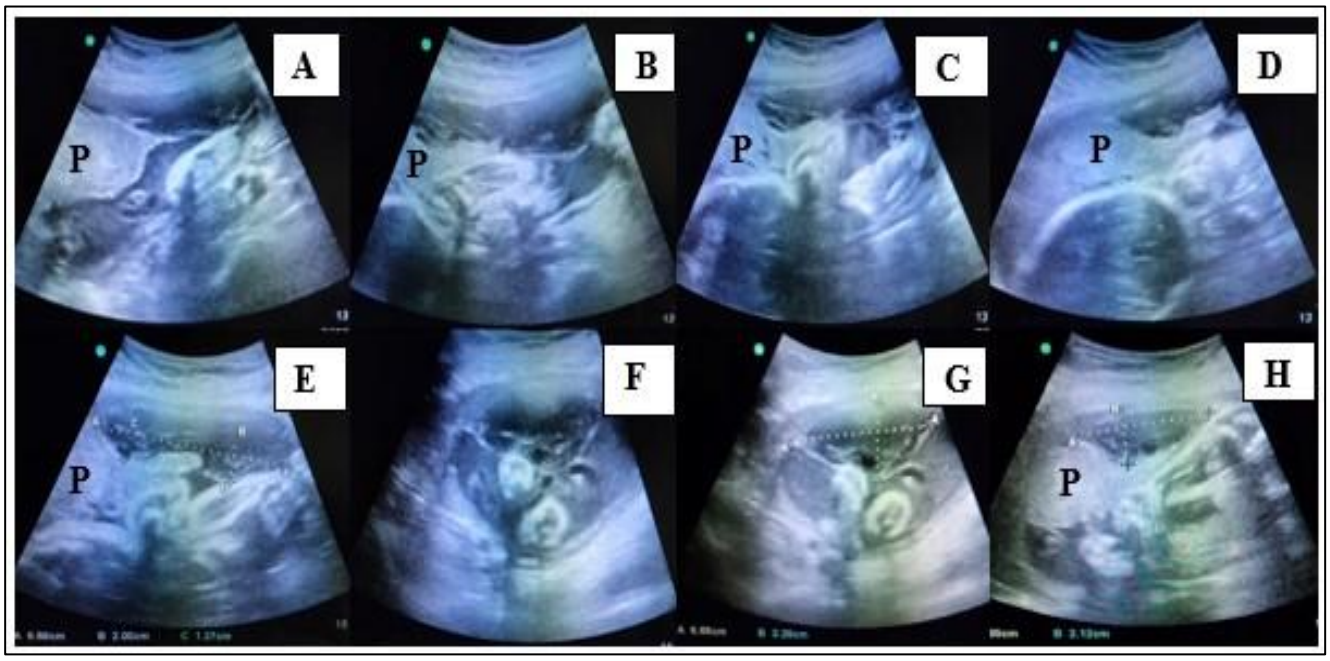

Figure 2 (A-H): Images of a retroplacental hematoma with marginal and subchorionic portions. Longitudinal (D) and transverse (H) sections of the marginal portion. Transverse sections (F and G) of the subchorionic portion. Longitudinal sections (A to C and E) on different axes highlighting the two portions (marginal and subchorionic).
*P: Placenta.

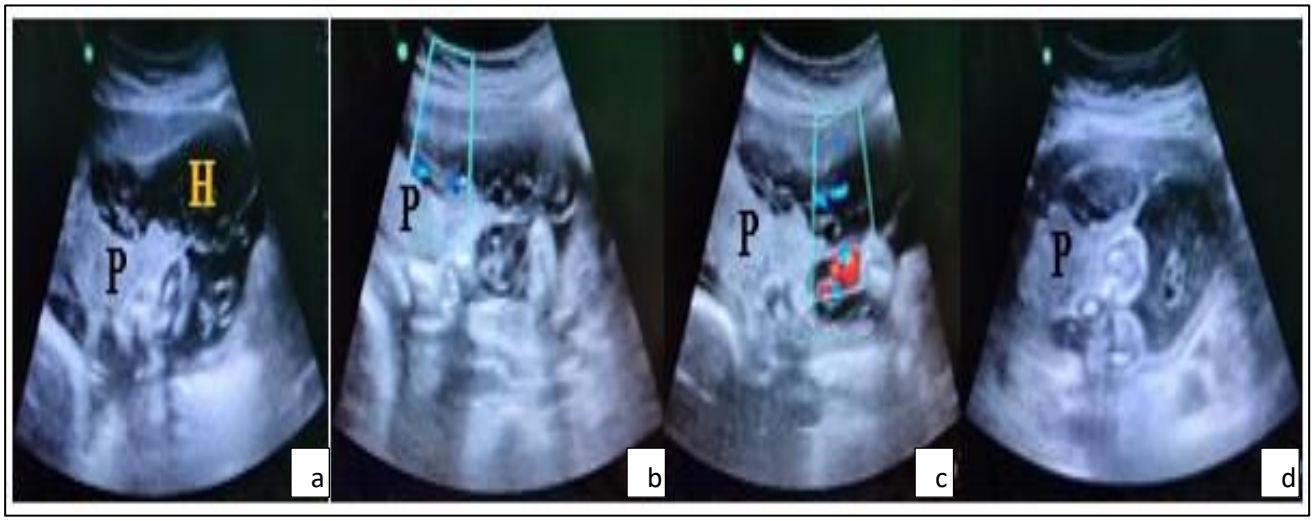

Figure 3 (a-d): Images of retroplacental hematoma with subchorionic portion.
*P: Placenta. H: Hematoma.

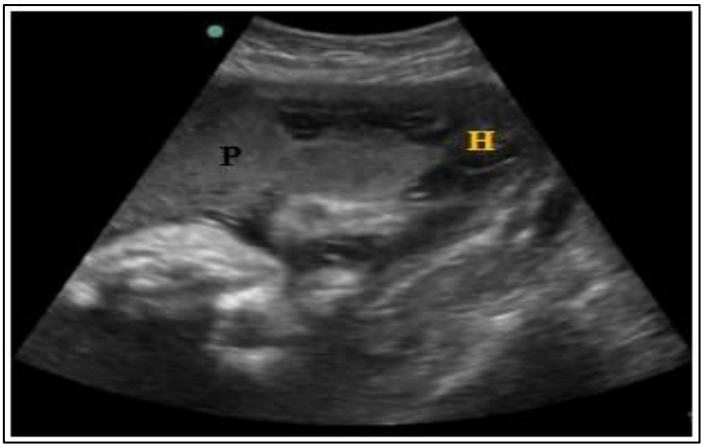

Figure 4: Image of retroplacental hematoma (recorded after 2 weeks of hospitalization of the patient).
*P: Placenta. H: Hematoma.

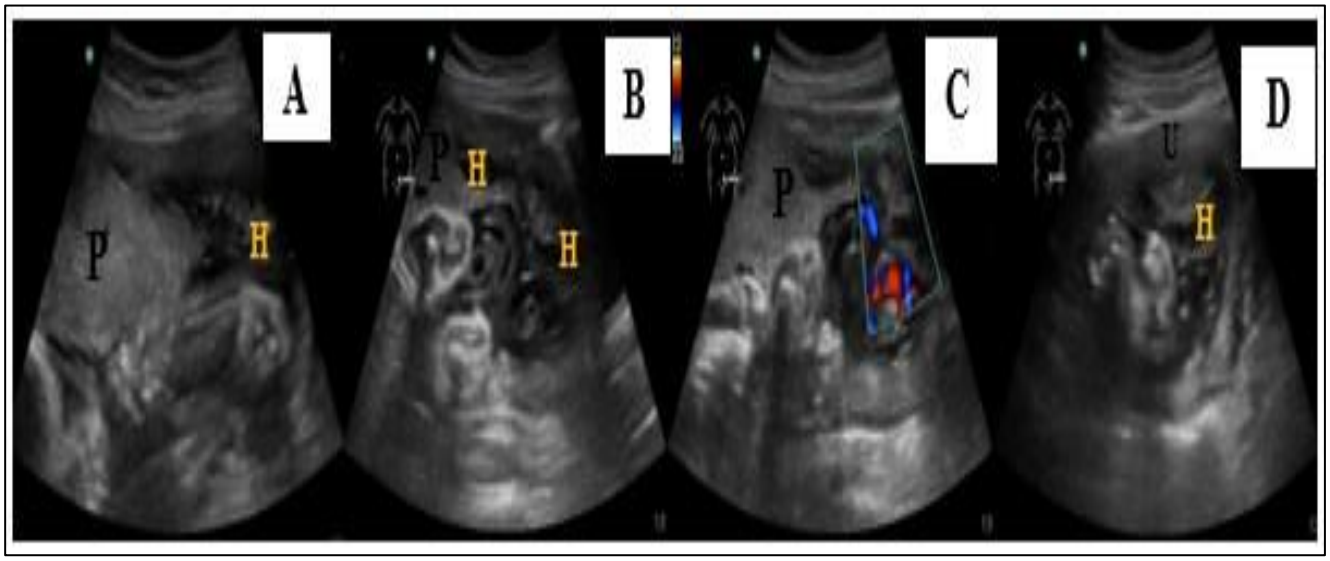

Figure 5 (A-D): Images of retroplacental hematoma with marginal and subchorionic portions recorded on the sixteenth day of hospitalization. Longitudinal sections on different axes: (A to C). Cross-section of the subchorionic portion (D).
*P: Placenta. U: Uterine wall. H: Hematoma

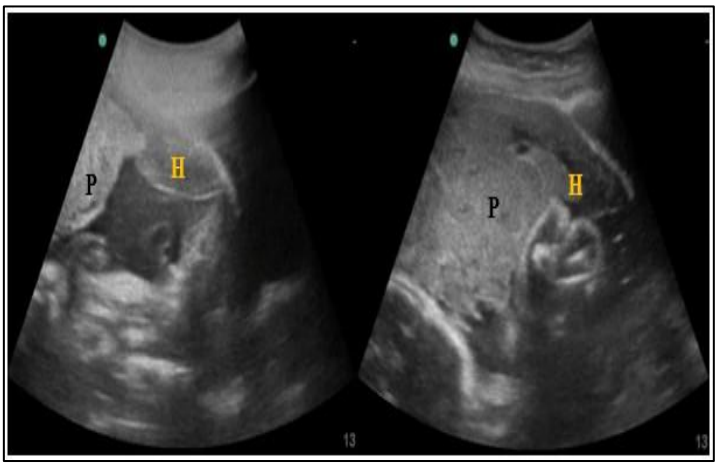

Figure 6: Images of retroplacental hematoma (recorded on the 31st day of hospitalization).
*P: Placenta. H: Hematoma.

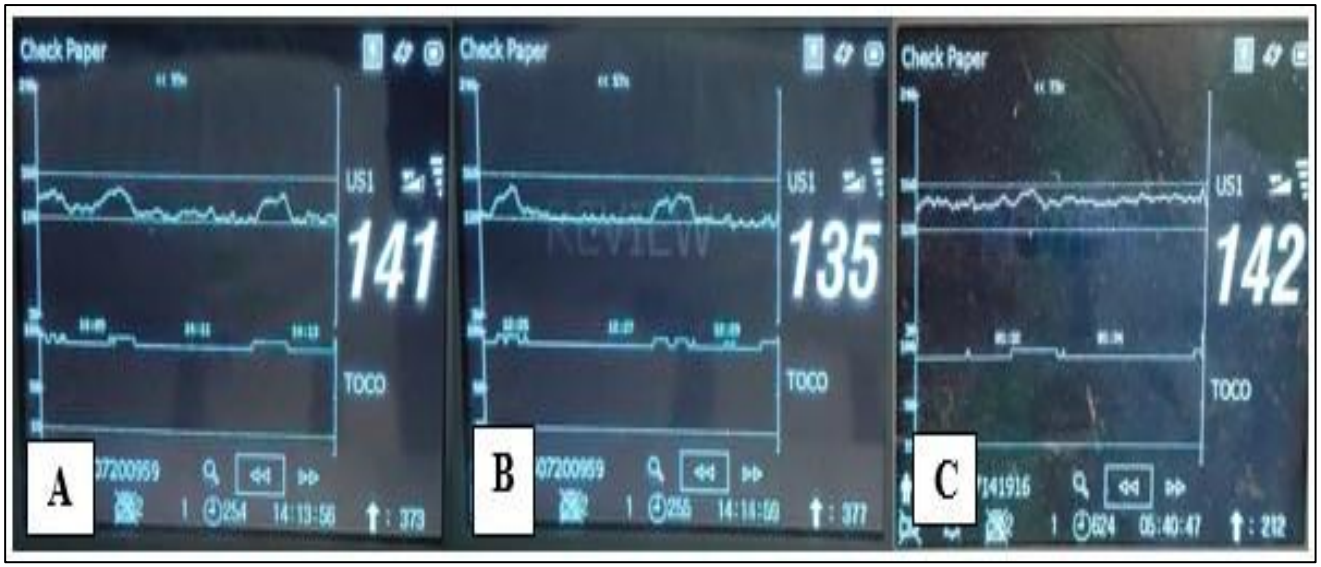

Figure 7 (A-C): Category I tracings images.

Table 1: Hemoglobin, hematocrit, platelet, and creatinine results during the two periods of hospitalization.

Variables		Hemoglobin (g/dl)	Hematocrit (%)	Platelets (/µl)	Creatinine (mg/dl)
Hospitalization period 1	Day 2	10.4	30.6	284 000	
Hospitalization period 2	Day 0	10.3	30.9	306 000	
	Day 2	11	33.1	299 000	
	Day 3	11.4	34.2	279 000	0.74
	Day 9	10.7	31.2	214 000	
	Day 23	11	32.2	282 000	0.6
	Day 32	11.3	32.7	254 000	

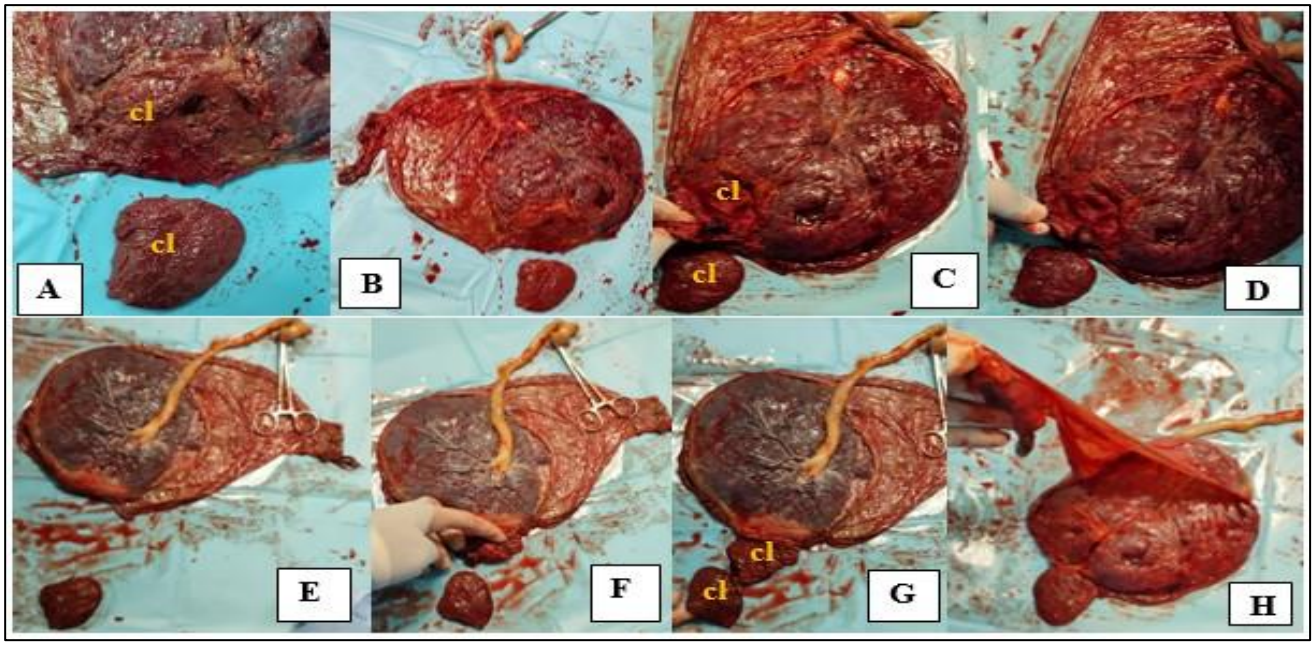

Figure 8: These images of the placenta show the maternal side (A to D) and the fetal side (E to G), highlighting a marginal retroplacental clot. A second, detached clot corresponds to the subchorionic image observed on ultrasound, and image H shows a portion of the amniotic membranes associated with this clot.

*Both clots appear old and are chocolate brown in color. cl: Clot

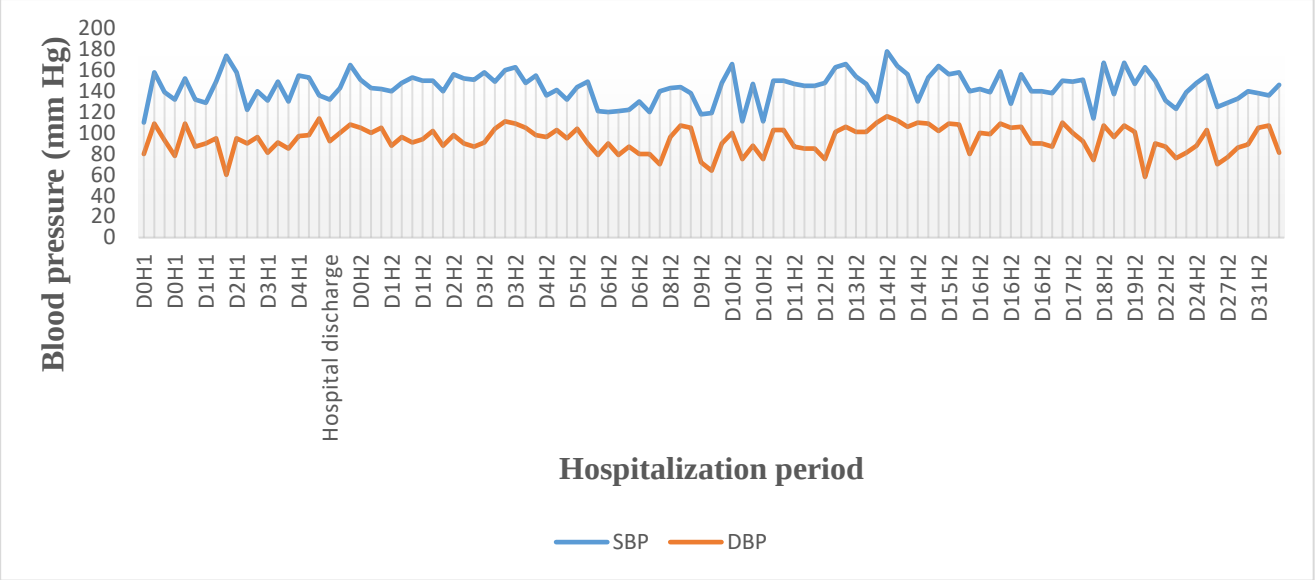

Figure 9: Systolic and diastolic blood pressure curves during the two hospitalization periods.
*SBP: systolic blood pressure; DBP: diastolic blood pressure; D: day; H: hospitalization period.

DISCUSSION

CAOS is an uncommon manifestation of placental abruption. In term of diagnosis, chronic placental abruption can be characterized by persistent or recurrent placental bleeding leading to chronic hematoma formation and progressive reduction in amniotic fluid volume. In our case, the patient presented with light vaginal bleeding, and at serial sonography, we found progressive oligohydramnios, and persistent retroplacental hematoma, contributed to clinical risk assessment. The presence of a hematoma is not systematically visualized on ultrasound in cases of abruptio placentae. During the period of prematurity, ultrasound visualization of a clot was possible in 25% of patients, without this having a significant impact on the management or clinical course.[5] The ultrasound scan performed 48 hours before her readmission showed a marginal retroplacental hematoma at the lower pole, measuring 8.7×4.1 cm. Up to 48 hours after readmission, the ultrasound scan still showed the hematoma with virtually the same dimensions.

These findings, together with the intraoperative discovery of organized, chocolate-colored clots, support the diagnosis of chronic abruption.

CAOS also poses a significant diagnostic and therapeutic dilemma, particularly at early gestational ages, with important implications for neonatal outcomes. When this syndrome occurs, the average gestational age at delivery is estimated to be 28 weeks.[6] In contrast, our patient delivered at 34 weeks and 3 days of gestation, a factor likely contributing to the favorable neonatal outcome.

The prolonged interval of 34 days between initial sonographic detection of the hematoma and delivery is notable, as most reported cases of placental abruption progress to delivery within a significantly shorter time frame.

In fact, a study of 43 patients with placental abruption occurring before 35 weeks of gestation who received expectant management reported that 23 of them delivered within a week of admission, while the average time to delivery was 26.8 days for the remaining 20 patients. No fetal deaths in utero were recorded in this group.[7] Grace and Peterson also reported a case of abruptio placentae with delivery at 33 weeks and 1 day of gestation, after approximately 10 weeks of hospitalization.[8]

In this case, our main concern was related to the gestational age, which was in the early preterm period, as well as our limited capacity to care for this category of premature infants in Haiti, particularly at Sainte-Thérèse Hospital in Hinche.

Management of CAOS is not standardized, and gestational age at presentation plays a central role in determining outcomes.

Conservative management was therefore aimed at allowing the fetus to reach a certain degree of maturity, under close maternal and fetal monitoring. This situation illustrates the value of well-supervised expectant management, when medically justified, in cases of abruptio placentae. However, the decision to pursue expectant management must be approached with caution.

In this patient, several factors favored conservative management: stable maternal hematologic parameters, absence of active heavy bleeding, reassuring fetal heart rate patterns, and relative stability of the hematoma size

over time. Despite a complex context combining chronic abruption, oligohydramnios, and preeclampsia increased maternal risk, the pregnancy resulted in the birth of a live child with a satisfactory APGAR score, which is one of the strengths of this case, despite the limited availability of advanced neonatal intensive care in our setting.

Furthermore, our ability to accurately determine the exact time of onset of abruptio placentae is limited; therefore, we cannot rule out the possibility that the preterm labor diagnosed during the first hospitalization was a consequence of abruptio placentae. Follow-up of placental histopathological results cannot be systematically ensured due to structural and circumstantial constraints at the national level.

While expectant management may not be appropriate for all patients with chronic placental abruption, this case indicates that it may be considered in selected patients when close maternal and fetal monitoring and multidisciplinary care are available, even in resource-limited settings.

CONCLUSION

This case highlights the importance of rigorous prenatal monitoring and adequate hospital resources in the management of high-risk pregnancies specially in limited resource settings and also the need for appropriate hospital facilities to ensure optimal care in this type of situation.

The circumstances surrounding the onset of placental abruption alone do not allow us to predict whether it will develop into an acute or chronic form. Although conservative management may be considered in some cases, as clinically stable patients with reassuring fetal status. However, these criteria do not guarantee that there will be no rapid deterioration.

Further research is therefore needed to better understand the mechanisms of chronic abruptio placentae, refine management criteria, and, if possible, prevent associated complications. Finally, this situation highlights the importance of a multidisciplinary approach involving obstetrician, anesthesiologist, and pediatrician in the management of these complex cases.

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REFERENCES

1. Brandt JS, Ananth C V. Placental abruption at near-term and term gestations: pathophysiology, epidemiology, diagnosis, and management. Am J Obstet Gynecol. 2023;228(5S):S1313-29.
2. Chopra K. A Rare Case of Chronic Abruption-oligohydramnios Sequence at 16 Weeks Pregnancy with Compensated Severe Anemia. World Journal of Anemia. 2017;1(2):65-7.
3. Kurata Y, Kido A, Minamiguchi S, Kondoh E, Togashi K. MRI findings of chronic abruption-oligohydramnios sequence (CAOS): report of three cases. Abdom Radiol (NY). 2017;42(7):1839-44.
4. Kobayashi A, Minami S, Tanizaki Y, Shiro M, Yamamoto M, Yagi S et al. Adverse perinatal and neonatal outcomes in patients with chronic abruption-oligohydramnios sequence. J Obstet Gynaecol Res. 2014;40(6):1618-24.
5. Sholl JS. Abruptio placentae: clinical management in nonacute cases. Am J Obstet Gynecol. 1987;156(1):40-51.
6. Elliott JP, Gilpin B, Strong TH, Finberg HJ. Chronic abruption-oligohydramnios sequence. J Reprod Med. 1998;43(5):418-22.
7. Bond AL, Edersheim TG, Curry L, Druzin ML, Hutson JM. Expectant management of abruptio placentae before 35 weeks gestation. Am J Perinatol. 1989;6(2):121-3.
8. Grace K, Petersen R. Chronic Abruption Oligohydramnios Sequence. J Obstet Gynecol Neonatal Nurs. 2020;49(6):S31.

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