Placental abruption: a case study.

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Abstract:

Placental abruption is an obstetric complication that presents severe dangers to the fetus and his mother. and it is still difficult to manage and treat the placental abruption. We here report a case for a 23-year-old woman, she had placental abruption in two previous deliveries. In the two times she had preterm deliveries, and the newborns were low weight, and they died before reaching the age of a month. While in the third pregnancy, the patient underwent cerclage and delivery completed with no placental abruption. We have reviewed the clinical course and outcome in this article. The existing literature regarding placental abruption is also reviewed.

Keywords: Placental abruption, Preterm deliveries, Newborns, Premature, Cerclage, Perinatal, Fetus.

1 Introduction

Placental abruption is defined as partial or complete premature separation of a normally implanted placenta with hemorrhage into the decidua basalis (1). Placental abruption is considered a serious complication of pregnancy (2), and the most common reason of late pregnancy hemorrhage (3). Placental abruption is usually occurring at the third trimester and containing the prognosis of fetus and mother (2).

Placental abruption is also an important reason of perinatal morbidity and mortality (4). The effect of abruption on mothers depends mainly on the abruption severity, while abruption effect on the fetus depends on both of the gestational age at which it happen and abruption severity (4). Often, abruption that include more than half of the placenta is related with fetal death (4).

Placental abruption affects about 1% of pregnancies (4). The diagnosis of placental abruption is always clinical (1). Its symptoms are a combination of vaginal bleeding, pain, and uterine contractions (3).

This study presented a case for a 23 year old Saudi woman, who had placental abruption two times before.

2 Case presentation:

A 23 year old woman, suffered from placental abruption two times before. she had abnormal obstetric history at two previous deliveries. The first delivery was preterm vaginal delivery at 26 WKS with abruptio placenta. The first delivery outcome was baby boy weighed 850 grams, this baby died after 3 WKS of birth. While second delivery was preterm cesarean delivery at 28 WKS for breech and abruptio placentae. The second delivery outcome was baby girl weighed 1.2 KGS, this baby died after 1 month of birth.

In the present pregnancy there was cerclage at 13 WKS. no antenatal admissions prior. Regarding PMH there was no significant past medical history.

Regarding the history of present admission for the patient the woman was admitted to hospital on 7/ Feb/ 2016 at 33 wks, as pv spotting 5 days and back pain. The evaluation showed that vital signs were stable. P/A 32 WKS Longitudinal lie cephalic FH + no tenderness. Pelvic examination showed; os closed cerclage, not under tension discharge. Scan showed SLF 33WKS, EFW 2.2KGS, cephalic placenta fundal posterior FH+ no signs of retroplacental hematoma or separation. CTG category 1. HB 8.9g/dl Rh+ O ,PT ,PTT N

Course in hospital

On 7/ Feb/ 2016 admitted to antenatal ward

- Dexamethasone 12 mg ivq12hrly
- Received IV ferrosac
- Discussed with the Patient the recurrence risk of abruption
- planed for mechanical induction at 37 wks

On 5/ Mar/ 2016

- Patient was at 36wk+5 D Ctg showed reduced variability
- Shifted to LR for cerclage removal
- Post cerclage removal patient was 1 cm dilated shifted to HRW for mechanical induction.

On 6/ Mar/ 2016

- Patient progressed spontaneously to 2-3 cm shifted to LR and augmented with ARM clear liqour draining
- Patient started on syntocinon
- Ctg showed reduced variability to decide for cesarean as fetal distress and risk of abruption.

Intraoperative findings

The outcome was baby boy weighed 2.8 kgs APGAR 8/9. Placenta and membranes delivered completely no abruption. Bleeding was moderate from placental bed 1.5 liters total blood loss. Bakri Balloon was inserted. Hb was 4.2g/dl , PLT 74. Patient received 1unit of PRBC in recovery. Patient was transferred to ICU for observation, total stay days in icu was 2days then pt shifted to post op ward when she became stable. patient came to Out Patient Department after 4 weeks with no complain, and all her investigation within normal level.

3 Discussion

Placental abruption is an obstetric complication that presents severe dangers to the fetus and his mother. And affect at

about 0.5-1% of the pregnancies (1). The etiology of placental abruption is unknown, but placental abruption it happens more for among smokers, in pregnancies with intra uterine growth restriction (IUGR), in hypertensive pregnancies, in trauma instances, with male fetuses, with advancing women age, and among women with a prior placental abruption. Many factors are Known to be correlated with increased risk of placental abruption such as; cocaine use, alcohol and smoking(3,5).

Pathological studies found that placental abruption is associated with abnormal placenta blood vessels, blood clotting, and decreased placental perfusion. Genetic differences may be predisposed to these problems (6). The risk of placental abruption varies depending on race, Where it was found that placenta abruption is more likely to occur among African-American women (1 in 595) than among Latin-American (1 in 1423) women or White (1 in 876) (5). In the end, both environmental and genetic factors contribute to placental abruption (5).

The diagnosis of placental abruption commonly determined by clinical manifestations, placental detachment is confirmed after delivery. Clinical symptoms of placental abruption include bleeding of vagina, uterine pain, and continuous stiffening of uterine (4). The ultrasonography usefulness have been considered as the adjunctive diagnosis, and it is used widely used for this aim. The findings of ultrasound involve retroplacental hematoma and placental thickness (7).

In this study, we presented a case of a woman who had suffered from placental abruption in two previous deliveries. Her first delivery was preterm delivery at 26 weeks, while the second was at 28 weeks. Generally, The occurrence of abruption peaks at 24 to 26 weeks of gestation (5).

Placental abruption is associated with preterm delivery, hypoxia, low birth weight, stillbirth and perinatal death (1). Indeed, both deliveries of our patient were preterm deliveries. The first delivery outcome was weighed 850 grams, this baby died after 3 weeks of birth. While, the second delivery outcome weighed 1.2 KGS, this baby died after 1 month of birth. Abruption associated with perinatal mortality as high as 60 percent (6). In the case of placental abruption, the fetal survival depends on the gestational age and the severity of the abruption (1). If abruption of placenta included more than 50% of placental surface, it often associated with fetal death (1).

Our patient has suffered from placental abruption twice in a row, and this repetition in the abruption is expected. Becausee, the presence of a prior abruption is the strongest risk factor for repeating the event (5). Whereas, placental abruption from a previous pregnancy increases the placental abruption risk tenfold in a subsequent pregnancy (8).

Many worldwide studies have shown that the advanced age of women represent a risk factor of placental abruption(2). But in the current study the patient was 23 year old.

In this study, the patient underwent cerclage in her third pregnancy at 13 weeks, and she succeeded in exceeding 37 weeks of pregnancy. The delivery was completed without placental abruption. Doctors resort to the use of cerclage in cases of patients with past obstetrical histories of recurrent mid trimester miscarriages or preterm delivery (9).

Regarding the management of patients with placental abruption, this process is complicated by the fact there has never been a randomized control trial examining treatment modalities. So, management is performed on an individual depending on a variety of variables including abruption severity gestational age, and maternal and fetal status (8). Most placental abruption cases are unpredictable and cannot be prevented. . However, in some cases, the outcomes of mothers and infants can be improved through awareness to the benefits and risks of conservative management, continuous assessment of fetal and maternal well-being, and expeditious delivery where appropriate (4).

4 Conclusion

Placental abruption remains a health problem that is difficult to manage, especially in developing countries. It presents severe dangers to the fetus and his mother. It associated with preterm delivery, hypoxia, low birth weight, stillbirth and perinatal death. Placental abruption in previous delivery increases the likelihood of recurrence of it. Continuous follow-up during pregnancy will help to improve the maternal and fetal prognosis.

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