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Case Report

Benckiser's Hemorrhage Case Report

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Abstract

Benckiser's hemorrhage is a rare yet serious cause of vaginal bleeding in the third trimester of pregnancy. It is associated with 75 to 100% rate of perinatal mortality.

The best way to manage these situations is by antenatal diagnosis via ultrasounds, then a prophylactic c-section could be performed avoiding cataclysmic consequences.

We are sharing with the readers a case of Benckiser's hemorrhage of a patient with no antenatal diagnosis of vasa previa, presented to obstetric emergency department with vaginal bleeding at 34th week of gestation.

Keywords: *Benckiser's Hemorrhage; Vasa Previa; Abnormal Placentation; Third Trimester Bleeding; Obstetric Emergency*

Abbreviation

c-Section: Caesarean Section

Introduction

Benckiser hemorrhage is an uncommon but serious obstetric emergency that occurs in 1/1150 to 1/5000 pregnancies [1,2]. It is the consequence of the tearing of a vasa previa, a rare condition in which fetal vessels run through the membranes and are at risk of rupture [3], with consequent fetal exsanguination reaching up to 75 - 100% rate of neonatal mortality [4].

However, a detailed fetal and placental ultrasound in the second half of pregnancy should detect most cases of vasa previa, allowing close monitoring of these patients and the scheduling of a prophylactic c-section before the membranes rupture, which results in a significant reduction in fetal loses.

We present to readers a case of Benckiser s hemorrhage in a patient with no ante natal diagnosis, who was presented to our emergencies for third trimester vaginal bleeding.

Case Presentation

We report the case of a 26-year-old patient, no medical history, mother of 2 healthy children. Currently pregnant at her 34th week of gestation, monitored in a dispensary with a previous ultrasound showing a normal implanted placenta. The patient presented to obstetric emergencies with uterine contractions followed, few minutes before admission, by a discharge of bloody amniotic fluid.

The physical findings revealed a stable patient with normal blood pressure, uterine contractions, no hypertonia, a discharge of amniotic fluid mixed with red blood of moderate abundance and fetal tachycardia.

Giving the context of the sudden vaginal bleeding that occurred in the same time as the water break, a Benckiser's hemorrhage was suspected and the patient was immediately taken to the operating room for an emergency fetal extraction.

The c-section resulted in the extraction, in less than 10 minutes, of a healthy male newborn with a good adaptation to extra uterine life, with the observation of a succenturiate placenta, a marginal cord insertion and a velamentous insertion of an umbilical vessel that was ripped up with the membranes rupture. a hemoglobin level on cord blood has been performed and was normal (17 g/dl).

Figure 1: *Picture of the ruptured umbilical vessel running through fetal membranes.*

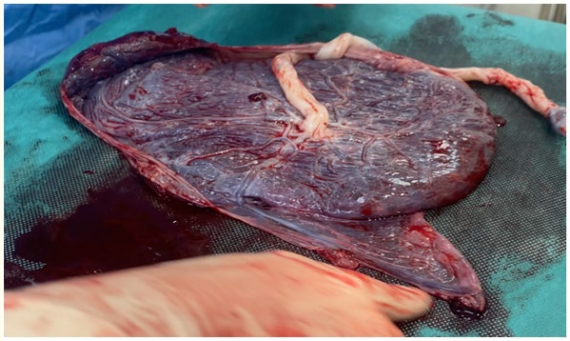

Figure 2: *Image showing marginal cord insertion with velamentous insertion of an umbilical vessel.*

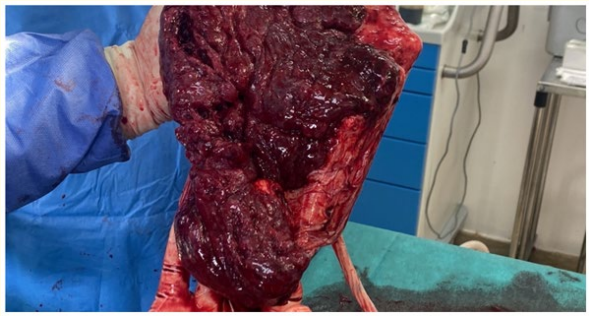

Figure 3: *Intra operative image of a succenturiate placenta.*

Discussion

Vasa previa is a rare situation that affects 0.6 in 1000 pregnancies [5]. The main risk factor is cord velamentous insertion, with the umbilical vessels coursing through the fetal membranes before inserting into the placental disk [6]. But it can also result from the presence of a succenturiate or a bilobed placenta [7]. It is more common in certain conditions like pregnancies conceived with assisted reproductive technology, and multiple gestations [8-11].

Women with vasa previa are exposed to many complications, the most serious being fetal death by hemorrhage and exsanguination when the low-lying fetal vessel is ruptured in the same time as the membranes. This process can be very quick giving that fetal blood volume is usually less than 100 mL/kg. these patients are having also an increased risk of preterm birth and associated complications of prematurity [3].

Rarely, diagnosis may occur by palpation of fetal vessels or fetal tachycardia and sinusoidal pattern on fetal heart rate tracing. However, it is more reliable by a detailed placental ultrasound in the second half of pregnancy, including the study of placental insertion, number of lobes and placental cord insertion, especially when the patient presents risk factors.

Typical findings include a linear tubular echolucent body overlying the os on gray scale ultrasonography. Color Doppler demonstrates flow through the structure and pulsed Doppler shows fetal vascular waveforms [3].

Newer imaging modalities such as MRI and three-dimensional ultrasound have been described in the evaluation of vasa previa. But are less practical and provide similar information obtained by careful use of a two-dimensional vaginal probe [6].

The ante-natal diagnosis is the cornerstone to reduce fetal loses, and the management strategies depend entirely on it. Many societies have published guidelines for the management of prenatally diagnosed vasa previa, such as: the Society of Obstetricians and Gynecologists of Canada, who suggests that patients should be hospitalized at 30 to 32 weeks' gestation and delivered at 35 to 36 weeks without confirmation of lung maturity by amniocentesis. This approach is based on the 10% risk of membrane rupture before labor [12].

The Society for maternal fetal medicine recommends delivery between 34 and 35 weeks' gestation, based on much of the same available data [13].

A large retrospective, multicentric study have shown newborn survival rates of 97% in prenatally established diagnosis of vasa previa and a fetal loss rate of 56% in cases not identified before labor [14].

In our case the patient had no prenatal diagnosis but was fortunate enough to arrive at the emergency room few moments after the water break. The post-natal findings confirmed that women with vasa previa have at least one risk factor. Which emphasis the crucial importance of screening for vasa previa in women with high-risk factors.

Conclusion

Benckiser's hemorrhage is a rare yet lethal complication when not diagnosed prenatally. Most women with vasa previa have at least one risk factor, thing that should draw the attention of obstetricians to scan for the condition by a careful fetal and placental ultrasound, giving that it's the only effective way to improve maternal and fetal outcomes.

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