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Case Report

A case report of retained placenta

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ABSTRACT

Retained placenta can occur in the setting of significant uterine atony, abnormally adherent placenta, as with placenta accreta spectrum (PAS), or closure of the cervix prior to placental expulsion. Risk factors for retained placenta parallel those for uterine atony and PAS and include prolonged oxytocin use, high parity, preterm delivery, history of uterine surgery, and IVF conceptions.

Keywords: Retained placenta, Manual removal of the placenta, Postpartum hemorrhage, Placenta accreta spectrum

INTRODUCTION

Retained placenta is diagnosed when the placenta does not deliver spontaneously within a specified period after vaginal birth, typically ranging from 18 to 60 minutes, depending on clinical guidelines.[1] In normal deliveries, strong uterine contractions help separate the placenta from the uterine wall and facilitate its expulsion. When this process is disrupted, the preferred management is manual removal of the placenta, performed with appropriate pain relief. Pharmacologic treatments alone have not shown consistent success. Potential risks associated with retained placenta include severe bleeding, infection such as endometritis, and retained placental fragments, which may lead to delayed hemorrhage or uterine infection.[1] The use of antibiotic prophylaxis during manual removal may be considered, although current evidence does not firmly support its effectiveness. If the placenta does not easily separate from the uterus, clinicians should suspect placenta accreta spectrum (PAS) and be prepared for significant bleeding and possibly the need for a hysterectomy.[2]

CASE REPORT

A 30-year-old female, gravida 2 abortion 1 presented at 29 weeks (dated by last menstrual period and first-trimester ultrasound) with decreased fetal movements in the past 1 day and USG suggestive of intra uterine fetal demise. She had previous one missed abortion for which dilatation and evacuation was done. The patient denied any previous surgeries. She did not use tobacco, nicotine, alcohol, opiates, or other illicit drugs during this pregnancy. She denied abdominal pain, leakage of fluids, and vaginal bleeding. She screened negative for sexually transmitted diseases (human immunodeficiency virus (HIV), herpes simplex virus (HSV), syphilis,) during her first and second trimesters.

She complained of decreased fetal movements since 1 days. An ultrasonography was done which was suggestive of single intrauterine fetus is seen in breech presentation, with maturity of 29 weeks intra uterine fetal demise.

The patient was admitted to labor and delivery for induction of labor due to intra uterine fetal demise tablet mifepristone 200 mg was given stat.

Course of labor

Labor was induced with mifepristone 200 mg and cerviprime gel PGE2 for cervical ripening and IV (intravenous) oxytocin for stimulation of contractions. She

received epidural anesthesia. The patient after 18 hours of labor, she delivered a female still born fetus by breech, via normal spontaneous vaginal delivery. After cutting the umbilical cord, gentle traction was maintained for 15 minutes to deliver the placenta; however, the placenta did not deliver. Following delivery, IM 250 mcg carboprost was given to the patient. The bladder was noted to be full and thus was emptied; approximately 200 ml of clear urine was drained. Traction was maintained for an additional 15 minutes, after which the placenta was noted to have not separated from the uterine fundus. Moderate bleeding was noted; hence, an attempt was made to manually deliver the placenta but failed. Given the risk of severe hemorrhage, the patient properly consented to a suction curettage. She also verbalized consent for the possible transfusion of blood products.

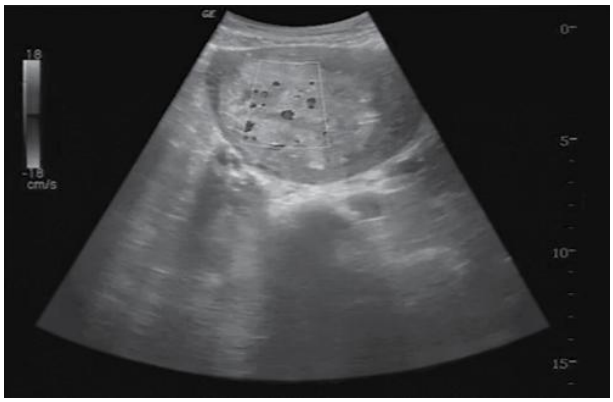

Figure 1: Ultrasonography showing adherent retained placenta.

Table number -1- Serial B HCG values.

Day	B HcG (mIU/ml)
7	770.78
14	269.9
21	161.98
28	86.3

After consent, she was prepared for a suction curettage under ultrasound guidance. After preparing the patient for curettage, a 12 French curved suction curette was inserted gently into the fundus. The suction machine was turned on and multiple passes of suction curette were used with ultrasound guidance to remove the retained products of conception. The patient received 800 mcg of rectal misoprostol, 50 units of IV oxytocin, 250 mcg of IM carboprost, and two IV doses of 1 g of tranexamic acid intra-operatively to control postpartum hemorrhage. Vaginal bleeding was significantly reduced after administering numerous intravenous uterotonics. Placenta was still adherent which was suggestive of placenta accrete and the procedure was abandoned in view of no PPH. The various portions of placenta collected from this patient were sent to pathology for analysis. The patient was awakened from anesthesia and taken to the recovery room, awake, alert, and in stable condition.

Postoperative course

The patient was stable with minimal vaginal bleeding or hemorrhage during the next two days post-surgery. Her uterine fundus was firm and non-tender. Her back pain was controlled with non-steroidal anti-inflammatory medication.

An USG was done on the next day which was suggestive of-Involuting uterus with retained placenta in right corneal region of uterus measuring 5.7×4.5 cm, retroplacental myometrium around 1/4th aspect appears indistinct. ET 7 mm. Features suggestive of morbidly adherent placenta or placenta accrete in right corneal region.

Injection methotrexate 75 mg I/M was given for management of retained morbidly adherent placenta. Her Beta HCg was done which was 5093 mIu/Ml. Her routine labs were sent which were found to be normal. An repeat USG was planned 2 days later. Findings were suggestive of-involuting uterus with retained placenta in right corneal region of uterus measuring 5.7×4.5 cm, retroplacental myometrium around 1/4th aspect appears indistinct. ET was 7 mm. Features suggestive of morbidly adherent placenta or placenta accrete in right corneal region. No significant change since previous examination. Injection methotrexate 75 mg I/M post pre term vaginal delivery for management of retained morbidly adherent placenta. It was decided to discharge the patient as she had no PPH and to monitor her serial B hcG levels every week and so serial ultrasonography. Serial B hcG were done. Serial USG were done suggestive of retained placenta of 5×4.1 cm ET was 5 mm. After 1 week patient came to hospital complaining of spontaneous expulsion of placenta with minimal bleeding per vaginum.

Her ultrasound was done, which shows no evidence of retained placenta. Endometrium was 5 mm

Pathology report

The patient's placenta was analysed, and the pathology report showed evidence of placental infarct.

DISCUSSION

This case highlights the presentation of the retained placenta, which can be asymptomatic throughout pregnancy and delivery and can only be diagnosed postpartum. The retained placenta may not show any ultrasound findings of placenta previa or accreta spectrum.[3] As such, although it is important to develop protocols to manage known cases of the adherent placenta, clinicians must remain cognizant of the possibility of a retained placenta in a patient with little or no risk factors and should be ready to use their best clinical judgment if such a case is encountered. Inquiring about previous complications in labor and delivery can guide the clinicians and possibly prepare them to manage a suspected case of retained placenta.[4] Other risk factors

include endometrial scarring due to endometritis, maternal age of more than 35 years, multiparity, submucous fibroids, and deposition of the embryo close to the cervix during embryo transfer with assisted reproductive technology.

We believe our patient likely had a focal placenta accreta, causing a retained placenta that could only be retrieved (in several pieces) after multiple passes of suction curettage.[5] One potential risk of suction and curettage could be the removal of healthy uterine tissue and resultant uterine adhesions (if curettage is used excessively), possibly leading to Asherman syndrome. In contrast, leaving healthy tissue attached to the retained placenta could lead to acute hemorrhage, shock, and even death.[6]

Furthermore, it is imperative to make the right clinical judgment early in a case of postpartum hemorrhage secondary to retained placenta. If placenta accreta is clearly diagnosed on ultrasound (usually by visualizing placental septations deep into the uterus and/or nearby organs), a hysterectomy with the placenta in situ is often the best course of action to decrease maternal and fetal mortality, as attempts to manually extract such a morbidly adherent placenta are usually unsuccessful.[7] The longer clinicians wait before performing a life-saving hysterectomy with the placenta in situ in such a patient, the higher the risk of maternal mortality due to uncontrolled hemorrhage and disseminated intravascular coagulation.[8]

CONCLUSION

Retained placenta can occur without identifiable antepartum risk factors. The incidence of the retained placenta has increased during the last few decades due to a corresponding increase in cesarean deliveries and other risk factors in the placenta accreta spectrum. Retained placenta can cause postpartum hemorrhage, which can be fatal. Careful history-taking, physical examination, and clinical judgment should be taken into consideration when suspecting and diagnosing retained placenta. It is important to diagnose this pathology early in order to guide management, which may involve a life-saving hysterectomy. Certain available medical treatments for retained placenta are controversial, like the use of intra-umbilical oxytocin and intra-cervical nitroglycerin. More research is needed to improve the medical and surgical management of retained placenta, carefully taking into account a patient's pre-existing medical conditions. In conclusion, this case highlights that retained placenta is a serious obstetric complication that can cause life-threatening postpartum hemorrhage. Future research should consider challenging the current definition of retained placenta, defined as a placenta undelivered after 30 minutes, in favor of a shorter time period, 15 minutes undelivered, in order to mobilize the obstetric team, anesthesiologist, and blood bank to prevent catastrophic postpartum hemorrhage.

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