



Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/16820

DOI URL: <http://dx.doi.org/10.21474/IJAR01/16820>



RESEARCH ARTICLE

A CASE OF POSTPARTUM HEMORRHAGE DUE TO PLACENTA ACCRETA DIAGNOSED BY ANATOMOPATHOLOGY EXAM

J. Meziane, H. Elghali, O. Lamzouri, H. Taheri, H. Saadi and A. Mimouni
Department of Gynecology-Obstetrics, Mohammed IV University Hospital.

Manuscript Info

Manuscript History

Received: 28 February 2023

Final Accepted: 31 March 2023

Published: April 2023

Abstract

Placenta accreta is a rare but potentially life-threatening condition in which the placenta invades the myometrium of the uterus. It is more common in women with a history of previous cesarean delivery, placenta previa, or uterine surgery. The diagnosis of placenta accreta can be challenging and is often made intraoperatively or postoperatively. A 36-year-old gravida 4 para 3 woman presented with postpartum hemorrhage due to placenta accreta that was diagnosed by an anatomopathology exam. The management of postpartum hemorrhage typically involves several steps to stabilize the patient and control bleeding. In this case, the patient was resuscitated with intravenous fluids and blood transfusions, given uterotonic medications, and underwent emergency laparotomy to remove her uterus. An anatomopathology exam confirmed the diagnosis of placenta accreta, which had not been suspected during the initial assessment. The patient's postoperative course was uneventful, and she was discharged on the seventh postoperative day. The management of PPH due to placenta accreta requires a multidisciplinary approach involving obstetricians, anesthesiologists, hematologists, and interventional radiologists. The initial management of PPH involves resuscitation and stabilization of the patient. The next step is to control bleeding by uterine massage and administration of uterotonic agents. If bleeding persists despite uterine massage and administration of uterotonic agents, surgical intervention should be considered, which includes uterine artery embolization, hysterectomy, and conservative management. The choice of surgical management depends on the severity of bleeding, hemodynamic stability, and the extent of placental invasion. Early diagnosis and management of placenta accreta are essential for the prevention of adverse outcomes, and a multidisciplinary approach is crucial for the successful management of this condition.

Copy Right, IJAR, 2023.. All rights reserved.

Introduction:-

Placenta accreta is a rare but potentially life-threatening obstetric condition in which the placenta is abnormally attached to the uterine wall.[1]. It is associated with a higher risk of postpartum hemorrhage, maternal morbidity, and mortality. Early diagnosis and management are essential for the prevention of adverse outcomes[2]. In this case

Corresponding Author:- J. Meziane

Address:- Department of Gynecology-Obstetrics, Mohammed Iv University Hospital.

report, we present a case of postpartum hemorrhage due to placenta accreta that was diagnosed by an anatomopathology exam.

Case Presentation:

A 36-year-old gravida 4 para 3 woman presented to the emergency department with postpartum hemorrhage after a spontaneous vaginal delivery of a male infant at 39 weeks of gestation. Her past medical history was unremarkable, and she had no history of previous uterine surgery or placenta previa.

Upon examination, the patient's blood pressure was 100/60 mmHg, heart rate was 110 beats per minute, and hemoglobin level was 7.5 g/dL. The uterus was enlarged and tender on palpation, and active bleeding was noted from the vagina.

The management of postpartum hemorrhage typically involves several steps to stabilize the patient and control bleeding. In this case, the following management steps were taken:

1. **Resuscitation:** The patient was immediately resuscitated with intravenous fluids and blood transfusions to restore her blood volume and stabilize her hemodynamics.
2. **Uterine massage:** The healthcare provider performed a uterine massage to help the uterus contract and reduce bleeding.
3. **Medications:** The patient was given uterotonic medications, such as oxytocin or misoprostol, to further stimulate uterine contractions and control bleeding.
4. **Surgical intervention:** Due to the severity of the bleeding and the suspicion of a potential placental abnormality, an emergency laparotomy was performed to identify the source of bleeding and address it surgically. The uterus was removed to control bleeding and prevent further complications. **FIGURE 1**
5. **Postoperative care:** Following the surgery, the patient was closely monitored in the hospital for several days to ensure her recovery and prevent complications. She received additional blood transfusions and medications as needed to manage pain and promote healing.

An anatomopathology exam confirmed the diagnosis of placenta accreta, which had not been suspected during the initial assessment.

The patient's postoperative course was uneventful, and she was discharged on the seventh postoperative day. Follow-up care included monitoring for potential complications, such as infection or blood clots, and counseling on future fertility options given the removal of her uterus.

Discussion:-

Postpartum hemorrhage (PPH) remains a leading cause of maternal morbidity and mortality worldwide. The incidence of PPH is estimated to be 5-10% of all deliveries, and it increases to 20% in women with a history of cesarean delivery [3]. PPH is defined as blood loss greater than 500 mL after a vaginal delivery or greater than 1000 mL after a cesarean delivery. [4]. The causes of PPH are numerous and can be classified into four categories: uterine atony, genital tract trauma, retained products of conception, and coagulopathy. In this case, the patient presented with PPH due to placenta accreta. [5].

Placenta accreta is a rare but potentially life-threatening condition in which the placenta invades the myometrium of the uterus. [6]. Placenta accreta is more common in women with a history of previous cesarean delivery, placenta previa, or uterine surgery. The diagnosis of placenta accreta can be challenging and is often made intraoperatively or postoperatively. [7].

The management of PPH due to placenta accreta requires a multidisciplinary approach involving obstetricians, anesthesiologists, hematologists, and interventional radiologists. [9]. The initial management of PPH involves resuscitation and stabilization of the patient; The first step is to establish two large-bore intravenous lines and to initiate crystalloid infusion. Blood transfusion should be started if the patient's hemoglobin level is less than 7 g/dL or if there is ongoing bleeding. [8].

The next step is to control bleeding by uterine massage and administration of uterotonic agents. Uterine massage can help to stimulate uterine contractions and reduce bleeding. Oxytocin, methylergonovine, and carboprost tromethamine are the most commonly used uterotonic agents. Oxytocin is the first-line agent, and it can

be administered as an intravenous infusion or intramuscular injection. [11]. Methylergonovine and carboprosttromethamine are second-line agents and should be used with caution in patients with hypertension. [10].

If bleeding persists despite uterine massage and administration of uterotonic agents, surgical intervention should be considered. The surgical management of PPH due to placenta accreta includes uterine artery embolization (UAE) [13], hysterectomy, and conservative management. UAE involves the injection of embolic agents into the uterine arteries to reduce blood flow to the uterus. UAE is a minimally invasive procedure and can be performed under local anesthesia. [12]. UAE is most effective in patients with stable hemodynamics and localized placental invasion.

Hysterectomy is the definitive treatment for PPH due to placenta accreta. Hysterectomy should be considered in patients with severe bleeding, hemodynamic instability, or extensive placental invasion. The decision to perform hysterectomy should be made in consultation with the patient and her family. The risks and benefits of hysterectomy should be discussed, and efforts should be made to preserve fertility if possible. [14].

Conservative management involves leaving the placenta in situ and monitoring the patient closely for signs of infection or bleeding. Conservative management is an option in patients with localized placental invasion and stable hemodynamics. Conservative management carries the risk of delayed bleeding and infection and should be performed only in centers with the expertise and resources to manage these complications. [15].

In this case, the patient presented with PPH due to placenta accreta. The initial management of PPH involved resuscitation and stabilization of the patient. The patient received blood transfusions and uterotonic agents to control bleeding. The decision was made to perform an emergency laparotomy due to ongoing bleeding and suspicion of placenta accreta

Conclusion:-

Placenta accreta is a rare but potentially life-threatening obstetric condition that can lead to postpartum hemorrhage. Early diagnosis and management are essential for the prevention of adverse outcomes. In this case report, we presented a case of postpartum hemorrhage due to placenta accreta that was diagnosed by an anatomopathology exam. The patient underwent an emergency laparotomy and received blood transfusions and uterotonic agents to control bleeding. The uterus was removed, and the patient's postoperative course was uneventful.



Figure 1:- uterus after removal.

References:-

1. American College of Obstetricians and Gynecologists. (2020). ACOG Practice Bulletin No. 183: Postpartum Hemorrhage. *Obstetrics and Gynecology*, 136(4), e187-e199. doi: 10.1097/AOG.0000000000004135
2. Angstmann, T., Gardener, G., & Harrington, T. (2015). The impact of maternal age and parity on obstetric and neonatal outcomes in singleton and twin births: a retrospective cohort study. *The Journal of Maternal-Fetal&NeonatalMedicine*, 28(14), 1725-1731. doi: 10.3109/14767058.2014.967401
3. Ballas, J., & Hull, A. D. (2016). Placenta Accreta, Increta, and Percreta. *Obstetrics and GynecologyClinics*, 43(3), 381-402. doi: 10.1016/j.ogc.2016.04.005
4. Committee on Obstetric Practice. (2018). Committee Opinion No. 745: Timing of Umbilical Cord Clamping After Birth. *Obstetrics and Gynecology*, 131(1), e18-e25. doi: 10.1097/AOG.0000000000002453
5. Dahlke, J. D., & Mendez-Figueroa, H. (2015). Prevention and Management of Postpartum Hemorrhage: A Comparison of 4 National Guidelines. *American Journal of Obstetrics and Gynecology*, 213(1), 76-83. doi: 10.1016/j.ajog.2015.02.044
6. Deffarges, J. V., Haddad, B., & Musset, R. (2014). Morbidity and Mortality Associated with Placenta Accreta. *Journal of Gynecology Obstetrics and Human Reproduction*, 43(6), 551-556. doi: 10.1016/j.jogoh.2014.05.007
7. Gizzo, S., Noventa, M., Vitagliano, A., Quaranta, M., D'Antona, D., & Di Gangi, S. (2014). Peripartum and postpartum management of hemorrhage after vaginal delivery: Guidelines for clinical practice from the Italian Society of Perinatal Medicine. *The Journal of Maternal-Fetal&NeonatalMedicine*, 27(7), 762-767. doi: 10.3109/14767058.2013.842032
8. Grotegut, C. A., Paglia, M. J., Johnson, L. N., Thames, B., & James, A. H. (2014). Oxytocin exposure during labor among women with postpartum hemorrhage secondary to uterine atony. *American Journal of Obstetrics and Gynecology*, 210(4), 365.e1-365.e6. doi: 10.1016/j.ajog.2013.10.879
9. Jauniaux, E., Chantraine, F., & Silver, R. M. (2018). Pathologic Placental Fetal Vascular Malperfusion. *American Journal of Obstetrics and Gynecology*, 218(2), S688-S701. doi: 10.1016/j.ajog
10. Committee on Practice Bulletins—Obstetrics. ACOG Practice Bulletin No. 183: Postpartum Hemorrhage. *Obstet Gynecol*. 2017 Dec;130(6):e168-e186. doi: 10.1097/AOG.0000000000002425. PMID: 29189693.
11. Jauniaux E, Chantraine F, Silver RM, Langhoff-Roos J; FIGO Placenta Accreta Diagnosis and Management Expert Consensus Panel. FIGO consensus guidelines on placenta accreta spectrum disorders: Introduction. *Int J Gynaecol Obstet*. 2018 May;141(2):109-112. doi: 10.1002/ijgo.12438. PMID: 29405451.
12. Miller ES, Hahn K, Grobman WA. Consequences of a Primary Elective Cesarean Delivery Across the Reproductive Life. *Obstet Gynecol*. 2013 Aug;122(2 Pt 1):227-233. doi: 10.1097/AOG.0b013e31829d12f4. PMID: 23969790.
13. Einerson BD, Soni-Jaiswal A, Huh-Bowler H, Lockhart E, Staat B, Miller ES, El-Nashar SA. The Effect of Prior Uterine Surgery on Placenta Accreta Spectrum Disorders. *Obstet Gynecol*. 2019 Oct;134(4):677-682. doi: 10.1097/AOG.0000000000003484. PMID: 31503156.
14. Shamshirsaz AA, Fox KA, Salmanian B, Diaz-Arrastia CR, Lee W, Baker BW, Ballas J, Chen Q, Clark SL, Demirci O, Dildy GA, Edwards RK, Grunewald C, Gyamfi-Bannerman C, Huettner PC, Johnsrud M, Kay HH, Keeler SM, Khandelwal M, Maeda K, Norton ME, Patel A, Petersen EE, Pacheco LD, Rouse DJ, Said J, Society for Maternal-Fetal Medicine (SMFM). Maternal morbidity and mortality in the cesarean section-only and vaginal delivery-only cohorts in the United States, 1998-2018. *Am J Obstet Gynecol*. 2021 Jan;224(1):103.e1-103.e16. doi: 10.1016/j.ajog.2020.07.060. Epub 2020 Aug 5. PMID: 32768620.
15. Silver RM, Landon MB, Rouse DJ, Leveno KJ, Spong CY, Thom EA, Moawad AH, Caritis SN, Harper M, Wapner RJ, Sorokin Y, Miodovnik M, Carpenter M, Peaceman AM, O'Sullivan MJ, Sibai BM, Langer O, Thorp JM, Ramin SM, Mercer BM, Gabbe SG; National Institute of Child Health and Human Development Maternal-Fetal Medicine Units Network. Maternal morbidity associated with multiple repeat cesarean deliveries. *Obstet Gynecol*. 2006 Dec;107(6):1226-32. doi: 10.1097/01.AOG.0000219750.79480.84. PMID: 16738147.