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Case Report
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A Case of Placenta Percreta Presented with Frank Hematuria and Managed Conservatively

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Abstract
A serious risk of potentially fatal hemorrhage is associated with adherent placenta percreta, an uncommon variation of placenta accreta spectrum (PAS) illnesses. An even rarer occurrence is bladder involvement, which can occasionally manifest as extensive hematuria alone. Therefore, hematuria during pregnancy, whether microscopic or macroscopic, should be regarded as concerning symptoms that need to be addressed right once. In situations of placenta percreta that are suspected or confirmed, early urologist and multidisciplinary medical team involvement is particularly crucial because prompt surgical intervention may be required to guarantee patient safety. We describe the case of a 33-year-old lady who had three cesarean procedures in the past and who complained of light headedness and bloody urine at 28 weeks.

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Introduction

When a pregnant woman has adherent placenta issues, it might be fatal [1]. The placental villi, rather than the intervening decidua, connect abnormally to the myometrium. Among these are placenta accreta (75%–78%), in which the chorionic villi only penetrate the superficial myometrium, placenta increta (17–18%), in which the chorionic villi penetrate over half of the myometrium, and, infrequently, placenta percreta (5%), in which the chorionic villi penetrate the myometrium, serosa, and sometimes close organs like the bladder.In most instances, bladder invasion manifests as potentially fatal hematuria at the moment of delivery [2]. After the placenta was left in place, we describe a patient who had bladder invasion and placenta percreta and who thereafter developed delayed hematuria [2].

Case presentation

A 33-year-old woman (gravida 4, para 3) with a history of three cesarean sections, the most recent one is five years earlier, and an otherwise unremarkable medical history, presented at 28 weeks and 3 days gestational age. She was referred to our hospital complaining of bloody urine and dizziness for the past four days.

The patient was diagnosed with placenta previa with signs of percreta and bladder invasion, confirmed by a detailed fetal anomaly ultrasound scan at 21 weeks.

On admission, the patient appeared dizzy and pale. Her vital signs were as follows: blood pressure 92/55 mmHg, heart rate 108 bpm, SpO_2 98%, and she was afebrile.

Abdominal examination revealed a gravid uterus measuring approximately the size of a 25-week pregnancy, with mild suprapubic tenderness and significant hematuria.

A fetal ultrasound showed a viable fetus with average biometric parameters and normal amniotic fluid. A transvaginal ultrasound confirmed the diagnosis of placenta previa percreta, with multiple hypoechoic masses in the bladder suggestive of blood clots.

The patient was admitted for stabilization and management. Initial laboratory tests revealed a hemoglobin level of 6.7 g/dL and platelets of 188 × 10^9/L. Bladder catheterization demonstrated gross hematuria, and urinalysis was positive for blood (erythrocytes >100).

For initial stabilization, the patient received 4 units of packed red blood cells, 4 units of fresh frozen plasma, and 4 units of platelets. She was also administered 12 mg of dexamethasone for fetal lung maturation. A multidisciplinary team decided on termination of pregnancy.

As her family planning was not complete, the patient expressed a desire to preserve her fertility and avoid a hysterectomy. She was counseled about the risks, including bleeding, bladder injury, bowel injury, and the potential failure to preserve the uterus.

The patient was transferred to the operating room. Upon opening the abdominal wall, intra-abdominal inspection revealed multiple large vessels at the level of the lower uterine segment, under the peritoneum, and in the area of the bladder. Severe anterior wall adhesions, primarily on the right side of the uterus, were noted.

An initial bladder displacement was performed with delicate and rapid adhesiolysis. A Foley catheter tourniquet was applied at the lowest possible area of the lower uterine segment through two avascular windows in the broad ligament.

A longitudinal, high-level uterine incision was made above the lower uterine segment to avoid the placental bed. A healthy neonate weighing 1350 g was delivered. To minimize uterine bleeding, bilateral uterine artery ligation was performed at a low level.

Spontaneous placental extraction failed, requiring manual removal of the placental tissue. A small placental site was excised using surgical scissors, and five hemostatic sutures were placed at the bleeding site using 1-0 Vicryl. The internal iliac arteries were ligated bilaterally at two levels with non-absorbable silk.

Four separate stitches were placed on the bladder wall, primarily at the serosal base. The bladder was rechecked after securing hemostasis with a dye test using 300 mL of methylene blue.

The abdomen was closed using a standard technique. The total blood loss was 3000 mL. Intraoperative evaluation of the CBC revealed a hematocrit of 25.7% and hemoglobin of 5.9 g/dL. Intraoperative transfusions included 1050 mL of allogeneic red blood cells and 1400 mL of fresh frozen plasma.

The patient was monitored in the intensive care unit for two days, with intensive multidisciplinary team care and continuous bladder irrigation for residual blood clots. The postoperative course was uneventful, and the patient was discharged in good condition.

Discussion

Since the placenta's invasiveness is not always determined, it is challenging to differentiate between placenta percreta, increta, and accreta, which makes the precise occurrence of placenta percreta unknown. The incidence of placenta percreta has been reported to be between 1 in 1000 and 1 in 70,000 births [3]. The most severe type of placental invasiveness is placenta percreta, which necessitates prompt diagnosis and treatment to reduce morbidity. Risk factors for this pregnancy complication include multiparity, previous uterine surgery, the most prevalent type of cesarean delivery, and advanced maternal age [4]. As the number of prior cesarean births increases, the incidence of invasive placenta increases linearly. In every pregnancy where a low-lying placenta or placenta previa is detected, together with a history of uterine scarring, the diagnosis should always be suspected. According to estimates, there is a 40% risk of placenta accrete during the identification of placenta previa in a woman who has had three prior cesarean procedures [5].

By enabling us to select the most appropriate delivery timing and location, prenatal diagnosis of placenta percreta can assist lower mother and fetal morbidity and death. For a timely diagnosis of a placenta that is morbidly adherent, several sonographic criteria have been suggested. In these situations, a thorough medical history and a high level of suspicion are crucial. Using the color Doppler, the sonographic features show hypervascularity between the placenta and the bladder, which resembles a huge aneurysm, intraplacental lacunar gaps, irregularity of the serosa-bladder interface, and an inability to see the usual retroplacental clear zone [6–9]. In our instance, a transvaginal ultrasound revealed several hypoechoic lumps in the bladder that might be blood clots, confirming the diagnosis of placenta previa percreta.

Hematuria is an uncommon condition that accounts for 25% of all instances of placenta percreta [11]. Any pregnant woman who presents with gross hematuria and a history of prior cesarean sections should be suspected of having placenta percreta with bladder invasion, even if this is not a sensitive finding [12]. Due to the potentially fatal nature of placental bladder infiltration, multidisciplinary surgical management, a sufficient supply of blood products, newborn intensive care, and the possibility of uterine artery embolization if necessary are all required. It is advised to have a hysterectomy without making any attempts to remove the placenta [13]. Severe blood loss could result from the bladder and placenta separating. Preserving bladder integrity should be one of the main surgical objectives, even in situations where there is significant intraoperative bleeding. When this cannot be avoided, the bladder incision might be used for a hysterotomy and cesarean section. To reduce ureteral damage, ureteric stents must be placed prior to surgery.

Leaving the placenta in place following a cesarean delivery and administering a postoperative methotrexate injection is another more recent alternative therapy option [14, 15]. In addition to reducing intraoperative blood loss, concurrent vascular embolization may promote placental involution after surgery. Regular postpartum monitoring is necessary in these situations since it may take several months for the placental remains to completely recede. Because blood loss could be controlled, a hysterectomy was not necessary [16]. Sexual dysfunction, urine incontinence, and fistulas are possible long-term effects of bladder injury.

Conclusion

This example emphasizes the value of a multidisciplinary approach and early detection for treating placenta previa percreta with bladder invasion. Although these instances are still high-risk and require careful intraoperative and postoperative care, conservative surgical procedures can result in hemostasis while preserving fertility as desired by the patient.This case's good outcome demonstrates the feasibility of fertility-preserving surgery in some situations and emphasizes the significance of customized treatment plans based on the patient's reproductive goals and medical needs.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

Reference

1. Ibrahim MA, Liu A, Dalpiaz A, Schwamb R, Warren K, Khan SA. Urological manifestations of placenta percreta. Curr Urol. 2015; 8:57–65. doi: 10.1159/000365691. [DOI] [PMC free article] [PubMed] [Google Scholar]
2. Konijeti R, Rajfer J, Askari A. Placenta percreta and the urologist. Rev Urol. 2009; 11:173–6. [PMC free article] [PubMed] [Google Scholar]
3. Pohl R. The special case: rare gynecologic emergency of uterine perforation in placenta percreta. Fortschritte der Medizin. 1979;97(46):2143–2144. [PubMed] [Google Scholar]
4. Silver R. M., Barbour K. D. Placenta Accreta Spectrum. Accreta, Increta, and Percreta. Obstetrics and Gynecology Clinics of North America. 2015;42(2):381–402. doi: 10.1016/j.ogc.2015.01.014. [DOI] [PubMed] [Google Scholar]
5. Silver R. M., Landon M. B., Rouse D. J., et al. Maternal morbidity associated with multiple repeat cesarean deliveries. Obstetrics and Gynecology. 2006;107(6):1226–1232. doi: 10.1097/01.AOG.0000219750.79480.84. [DOI] [PubMed] [Google Scholar]
6. Finberg H. J., Williams J. W. Placenta accreta: Prospective sonographic diagnosis in patients with placenta previa and prior cesarean section. Journal of Ultrasound in Medicine. 1992;11(7):333–343. doi: 10.7863/jum.1992.11.7.333. [DOI] [PubMed] [Google Scholar]
7. Twickler D. M., Lucas M. J., Balis A. B., et al. Color flow mapping for myometrial invasion in women with a prior cesarean delivery. The Journal of Maternal-Fetal Medicine. 2000;9(6):330–335. doi: 10.1002/1520-6661(200011/12)9:6<330: AID-MFM1002>3.0.CO;2-O. [DOI] [PubMed] [Google Scholar]
8. Comstock C. H. The antenatal diagnosis of placental attachment disorders. Current Opinion in Obstetrics and Gynecology. 2011;23(2):117–122. doi: 10.1097/GCO.0b013e328342b730. [DOI] [PubMed] [Google Scholar]
9. Guy G. P., Peisner D. B., Timor-Tritsch I. E. Ultrasonographic evaluation of uteroplacental blood flow patterns of abnormally located and adherent placentas. American Journal of Obstetrics and Gynecology. 1990;163(3):723–727. doi: 10.1016/0002-9378(90)91056-I. [DOI] [PubMed] [Google Scholar]
10. Comstock C. H., Bronsteen R. A. The antenatal diagnosis of placenta accreta. BJOG: An International Journal of Obstetrics and Gynaecology. 2014;121(2):171–181. doi: 10.1111/1471-0528.12557. [DOI] [PubMed] [Google Scholar]
11. Konijeti R., Rajfer J., Askari A. Placenta percreta and the urologist. Rev Urol. 2009;11(3):173–176. [PMC free article] [PubMed] [Google Scholar]
12. Abbas F., Talati J., Wasti S., Akram S., Ghaffar S., Qureshi R. Placenta percreta with bladder invasion as a cause of life threatening hemorrhage. Journal of Urology. 2000;164(4):1270–1274. doi: 10.1016/S002 2-5347(05)67153-4. [DOI] [PubMed] [Google Scholar]
13. Silver R. M., Fox K. A., Barton J. R. Center of excellence for placenta accreta. American Journal of Obstetrics & Gynecology. 2015;212(5):561–568. doi: 10.1016/j.ajog.2014.11.018. [DOI] [PubMed] [Google Scho lar]
14. Khan M., Sachdeva P., Arora R., Bhasin S. Conservative management of morbidly adherant placenta - A case report and review of literature. Placenta. 2013;34(10):963–966. doi: 10.1016/j.placenta.2013.04.016. [DOI] [PubMed] [Google Scholar]
15. Doumouchtsis S. K., Arulkumaran S. The morbidly adherent placenta: an overview of management options. Acta Obstetricia et Gynecologica Scandinavica. 2010;89(9):1126–1133. doi: 10.3109/00016349.2010.503869. [DOI] [PubMed] [Google Scholar]
16. Koukoura O., Lialios G., Garas A., et al. Macroscopic hematuria due to placenta percreta. Report of two cases. Oral presentation. Proceedings of the 10th Athens Congress on Womens Health and Disease; September 2016; Athens, Greece. [Google Scholar]