Journal of Obstetrics, Gynecology and Cancer Research | ISSN: 2476-5848

Unusual Presentation of Placenta Accreta Spectrum with Gastrointestinal Problems at 27 Weeks of Gestation: A Case Report

Farzaneh Farah[1], Khatereh Hekmatnia[1*], Hajar Abbasi[1], Fatemeh Jayervand[2], Azin Kheradmand[3]

1. *Preventative Gynecology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran*
2. *Department of Gynecology and Obstetrics, School of Medicine, Iran University of Medical Sciences, Tehran, Iran*
3. *Department of Pathology, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

Article Info

10.24200/jogcr.10.10.798

Received: 2025/04/05
Accepted: 2025/05/27
Published Online: 01 Sep. 2025

Corresponding Information:
Khatereh Hekmatnia,
Preventative Gynecology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Email: haterehhekmatnia6348@gmail.com

ABSTRACT

Placenta Accreta Spectrum (PAS) is a severe obstetric complication characterized by abnormal placental adherence or invasion into the myometrium, potentially extending to adjacent organs. A 32-year-old G4 pregnant woman at 27 weeks of gestation was referred with acute and increasing abdominal pain, nausea, and vomitingto our emergency department. Her primary vital sign was blood pressure: 90/60 mmHg, heart rate: 104, respiratory rate: 28 per minute, temperature: 36.5 °C, and physical examination revealed a distended abdomen with general tenderness. With the worsening of its general condition, she was transferred to the operating room. Later. Laparotomy confirmed placenta increta with extensive uterine and bladder invasion. Patient was discharged in good general condition for about one week. This case underscores that PAS should be on the list of differential diagnoses of unstable hemodynamic situations in pregnant women with a history of previous cesarean delivery, even in cases with unrelated presentation.

Keywords: Placenta accreta spectrum, Hemoperitoneum, Second trimester presentation, Cesarean hysterectomy, Maternal-fetal outcomes

Copyright © 2025, This is an original open-access article distributed under the terms of the Creative Commons Attribution-noncommercial 4.0 International License which permits copy and redistribution of the material just in noncommercial usages with proper citation.

1. Introduction

Placenta Accreta Spectrum (PAS) is a severe obstetric complication characterized by abnormal placental adherence or invasion into the myometrium, with potential extension to adjacent structures such as bladder or pelvic organs **(1)**. The spectrum includes three main classifications: placenta accreta, where the placenta attaches directly to the myometrium without a decidual layer; placenta increta, where the placenta invades the myometrium; and placenta percreta, the most advanced form, in which placental tissue penetrates through the uterine serosa, sometimes invading surrounding organs **(2)**. This condition presents significant clinical challenges, with a rising incidence globally due to the increasing rates of cesarean delivery **(3)**.

Risk factors for PAS include placenta previa, prior cesarean sections, uterine surgeries, advanced maternal age, assisted reproductive technologies, and condtions causing uterine scarring. Placenta previa in conjunction with a history of cesarean delivery exponentially increases the risk of PAS, with studies showing an incidence of as high as 11-25% in these cases **(4-8)**. The condition is associated with severe maternal and neonatal risks, including massive peripartum hemorrhage, life-threatening complications during delivery, and a heightened need for cesarean hysterectomy. PAS can result in significant maternal morbidity and mortality if not managed appropriately **(4,9)**.

The diagnosis of PAS has been revolutionized by advances in prenatal imaging techniques, particularly ultrasonography and Magnetic Resonance Imaging (MRI) **(10)**. Sonographic findings such as irregular placental lacunae, uterovesical hypervascularization, myometrial thinning, and disruption of the retroplacental zone serve as key markers for early diagnosis **(11)**. However, the variability in imaging findings and their interpretation highlights the need for standardized diagnostic criteria and experienced radiologists. When ultrasound findings are inconclusive, MRI can provide additional clarity, particularly in cases involving posterior placenta or suspected organ invasion **(12)**.

Management of PAS requires a multidisciplinary approach, involving obstetricians, radiologists, anesthesiologists, and, in some cases, urologists and gynecologic oncologists. Preoperative planning is critical, with strategies including blood product preparation, cell salvage systems, and, in severe cases,

planned cesarean hysterectomy **(13)**. While hysterectomy remains the gold standard for high-grade PAS, uterus-preserving approaches, such as leaving the placenta in situ or performing partial myometrial resection, may be viable in some cases. These conservative strategies preserve fertility but are associated with higher risks of complications, including infection and delayed hemorrhage, requiring careful patient selection and close follow-up **(14)**.

This article presents a case of PAS managed at a tertiary care center, providing insights into clinical presentations, diagnostic challenges, surgical techniques, and maternal outcomes.

2. Case Presentation

A 32-year-old G4 pregnant woman at 27 weeks of gestation with acute abdominal pain, nausea and vomiting from the day before, which were increasing and was referred to our emergency department. She had a history of three prior cesarean deliveries, the most recent occurring seven years earlier. Her obstetric history was otherwise unremarkable, with no episodes of uterine contractions or significant vaginal bleeding. However, she reported spotting during the 8thweek of current pregnancy, and vaginal progesterone was prescribed, which used until two weeks before admission. Notably, she had not received prenatal or pregnancy care in recent weeks.

Her primary vital sign includes blood pressure: 90/60 mmHg, heart rate: 104, respiratory rate: 28 per minute, temperature: 36.5 °C, and physical examination revealed distended abdomen with general tenderness. Initial ultrasonography findings revealed a left lateral placental position with placental narrowing at the lower uterine segment and evidence of adherence to the myometrium consistent with placenta increta. The Amniotic Fluid Index (AFI) was normal and the estimated fetal weight was 1016 gr.

During the diagnostic and therapeutic procedures, due to the patient's hemodynamic instability, the increasing abdominal distension and pain, and the lack of sufficient time for the complementary diagnostic procedures such as MRI, the patient was transferred to the operating room about three hours after entering the emergency department.

An emergency exploratory laparotomy was performed under general anesthesia. A midline incision revealed approximately 3 liters of hemoperitoneum and 500 mL of clotted blood. The uterus was found to have a 2 cm tear on the right side and a 3 cm tear on the left side of the prior cesarean scar. The placenta was anterior, low-lying, and extensively invasive, involving the myometrium and extending into the serosa and bladder, consistent with placenta increta.

Following the delivery of a live neonate weighing 1000 gr in cephalic presentation, total abdominal hysterectomy and repair of the bladder were performed (Figure 1). The uterus and placenta were sent for pathological evaluation, which confirmed a diagnosis of placenta accreta (Figure 2).



Figure 1. Intraoperative image of the uterus post-hysterectomy, displaying the external morphology

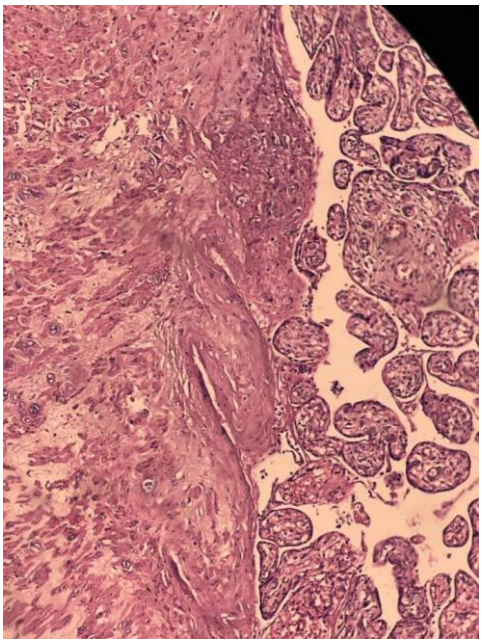


Figure 2. Histopathological evaluation of the uterine specimen demonstrating features consistent with placenta accreta. The section reveals the absence of the decidua basalis and direct attachment of chorionic villi to the myometrium, confirming the diagnosis

The patient intraoperatively received 7 units of Packed Red Blood Cells (PRBCs), 8 units of Fresh Frozen Plasma (FFP), 10 units of platelets, 4 gr of

fibrinogen, and 3 gr of tranexamic acid to manage significant blood loss. Postoperatively, she was intubated and transferred to the Intensive Care Unit (ICU), where she received an additional 4 units of PRBCs and 4 units of FFP.

The woman was admitted for three days to the ICU and then three days in the women's ward, and she was discharged in good general condition about one week after being referred to the emergency department.

3. Discussion

Early diagnosis of placental disorders is crucial for enabling timely interventions and preventing severe bleeding complications **(4)**. Ultrasound imaging is a critical tool for identifying and diagnosing PAS, a condition involving abnormal placental adherence or invasion into the myometrium and adjacent structures.

Ultrasound findings play a vital role in diagnosing PAS. Key markers include irregular and large intraplacental lacunae with turbulent blood flow, abnormalities of the uterovesical interface such as disruptions, a hyperechoic zone between the uterine serosa and bladder wall (referred to as the "bright bladder line"), loss of the hypoechoic retroplacental zone (the "clear zone"), exophytic masses extending into the bladder (indicative of placenta percreta), myometrial thinning to less than 1 mm, and uterine serosal protrusion. Color Doppler Imaging further identifies signs such as uterovesical hypervascularization, subplacental hypervascularization, bridging vessels that extend vertically through the myometrium into adjacent structures, and high-velocity placental lacunae feeder vessels with turbulent flow **(16)**.

Even with advanced imaging, PAS may occur without distinct ultrasound abnormalities, especially in patients with known risk factors. This variability in findings underscores the importance of standardized training and protocols to reduce interobserver discrepancies **(12)**. When PAS is suspected, delivery should occur in a level I perinatal center with access to a multidisciplinary team, an on-site blood bank, and specialized surgical resources **(17)**. In cases where bladder invasion is suspected, cystoscopy may provide additional diagnostic insight **(14)**. Although MRI is generally considered a supplementary tool, it can also be useful for assessing posterior placentas or determining the extent of placental invasion **(11)**.

Management of PAS depends on the severity of the condition **(1)**. The primary treatment for advanced PAS is cesarean hysterectomy, a definitive intervention that effectively manages invasive placental disorders but is associated with significant maternal morbidity, including loss of fertility and potential psychological consequences **(2)**. This procedure often involves substantial blood loss, necessitating transfusions and posing a risk of disseminated intravascular coagulation **(18)**. In some cases, conservative approaches such as excision of the affected tissue with subsequent uterine reconstruction may be attempted **(13)**. For extensive adhesions, en bloc resection is recommended, while postpartum balloons may be used for smaller areas to achieve hemostasis **(3)**. An experimental approach involves leaving the placenta in situ after fetal delivery, but this requires close monitoring due to the high risk of maternal complications **(16)**.

The management of PAS remains complex, with no definitive consensus on the optimal approach for high-grade cases **(19)**. However, early diagnosis, meticulous prepartum preparation, and individualized care plans are essential to improve the outcomes **(6)**. Continued efforts to refine diagnostic tools and develop tailored management strategies are needed to enhance both maternal safety and quality of life **(7,20,21)**.

The present case is unique due to the presentation time of the placenta accreta that was identified during the second trimester; However, it is typically detected in the third trimester of pregnancy. Furthermore, this complication is associated with symptoms such as uterine contractions or vaginal bleeding, while our case was referred with gastrointestinal problems, such as abdominal pain, nausea, vomiting.

In a study by Erol et al., **(16)**, eight cases of PAS present, showcasing varying severities, including placenta accreta, increta, and percreta, with complex clinical presentations such as uterine rupture, significant hemorrhage, and placental invasion into adjacent organs. These cases highlight diverse management approaches, ranging from uterine preservation with reconstruction to definitive cesarean hysterectomy, tailored to the severity of placental invasion and patient-specific factors. Multidisciplinary care, early diagnosis through advanced imaging, and preoperative planning, including blood product availability and hemostatic interventions, were critical in optimizing the outcomes. Despite the challenges, timely surgical and conservative treatments ensured favorable recoveries, with all patients discharged in stable condition. Their study underscores the importance of individualized care and specialized management in addressing PAS-related complications.

In a study by Vyshka1 et al., **(22)**, a rare and significant case of placenta increta resulting in hemoperitoneum during the 26th week of pregnancy was presented. A 34-year-old woman was admitted with acute abdominal pain and severe anemia. Clinical evaluation revealed uterine rupture accompanied by substantial intra-abdominal hemorrhage. Due to the severity of the rupture and associated complications, conservative management was deemed unfeasible, necessitating an emergency hysterectomy. Histopathological examination confirmed deep trophoblastic invasion into the uterine wall, which was consistent with a diagnosis of placenta increta.

4. Conclusion

This case underscores that PAS should be on the list of differential diagnoses of unstable hemodynamic situations in pregnant women with a history of previous cesarean delivery, even in cases with unrelated presentation. Early diagnosis, prompt surgical intervention, and a multidisciplinary approach are essential to mitigate risks and improve maternal and fetal outcomes.

5. Declarations

Acknowledgments

The authors would like to thank all those who helped us to write this article.

Ethical Considerations

Not applicable.

Authors' Contributions

Farzaneh Farah, Khatereh Hekmatnia: Study conception and article writing. Hajar Abbasi, Fatemeh Jayervand, Maryam Sadat Hosseini: article writing and editing.

Conflict of Interest

The authors declare no conflict of interest.

Fund or Financial Support

This research received no specific grant from any funding agency in the public, commercial, or not for profit sector.

References

1. Saadati N, Nikbakht R, Jefrideh Y, Asadzadeh S. Epidemiology and Risk Factors of Placenta Accreta Spectrum in Pregnancies with Assisted Reproductive Technology: A Retrospective Study in Southwest of Iran. J Obstet Gynecol Cancer Res. 2025;10(3):226-32. [DOI:10.30699/jogcr.10.3.226]
2. Alavi SM, Arjmandnia MH, Feizollahjani M, Noori E, Yousefi M. Placenta Accreta Spectrum; Risk Factors, Complications, Advantages and Disadvantages to Decrease Maternal Morbidity and Mortality. J Obstet Gynecol Cancer Res. 2024;9(5):516-21. [DOI:10.30699/jogcr.9.5.516]
3. Higgins MF, Monteith C, Foley M, O'Herlihy C. Real increasing incidence of hysterectomy for placenta accreta following previous caesarean section. Eur J Obstet Gynecol Reprod Biol. 2013;171(1):54-6. [DOI:10.1016/j.ejogrb.2013.08.030]
4. Usta IM, Hobeika EM, Musa AA, Gabriel GE, Nassar AH. Placenta previa-accreta: risk factors and complications. Am J Obstet Gynecol. 2005;193(3 Pt 2):1045-9. [DOI:10.1016/j.ajog.2005.06.037]
5. Bowman ZS, Eller AG, Bardsley TR, Greene T, Varner MW, Silver RM. Risk factors for placenta accreta: a large prospective cohort. Am J Perinatol. 2014;31(9):799-804. [DOI:10.1055/s-0033-1361833]
6. Marshall NE, Fu R, Guise JM. Impact of multiple cesarean deliveries on maternal morbidity: a systematic review. Am J Obstet Gynecol. 2011;205(3):262.e1-8. [DOI:10.1016/j.ajog.2011.06.035]
7. Garmi G, Salim R. Epidemiology, etiology, diagnosis, and management of placenta accreta. Obstet Gynecol Int. 2012;2012:873929. [DOI:10.1155/2012/873929]
8. Baldwin HJ, Patterson JA, Nippita TA, Torvaldsen S, Ibiebele I, Simpson JM, et al. Antecedents of Abnormally Invasive Placenta in Primiparous Women :Risk Associated with Gynecologic Procedures. Obstet Gynecol. 2018;131(2):227-33. [DOI:10.1097/aog.0000000000002434]
9. Izadi-Mood N, Nili F, Sarmadi S, Mirzaian E. Adult Uterine Wilm's Tumor Miss-interpreted as Carcinosarcoma: A Case Report. Int J Cancer Manag. 2024;17(1):e147330. [DOI:10.5812/ijcm-147330]
10. Barzilay E, Brandt B, Gilboa Y, Kassif E, Achiron R, Raviv-Zilka L, et al. Comparative analysis of ultrasound and MRI in the diagnosis of placenta accreta spectrum. J Matern Fetal Neonatal Med. 2022;35(21):4056-9. [DOI:10.1080/14767058.2020.1846699]
11. Lopes ES, Feitosa FEL, Brazil AV, de Castro JDV, da Costa JIF, Araujo Júnior E, et al. Assessment of Sensitivity and Specificity of Ultrasound and Magnetic Resonance Imaging in the Diagnosis of Placenta Accreta. Rev Bras Ginecol Obstet. 2019;41(1):17-23.
12. Wu S, Kocherginsky M ,Hibbard JU. Abnormal placentation: twenty-year analysis. Am J Obstet Gynecol. 2005;192(5):1458-61. [DOI:10.1055/s-0038-1675803]

13. Sentilhes L, Ambroselli C, Kayem G, Provansal M, Fernandez H, Perrotin F, et al. Maternal outcome after conservative treatment of placenta accreta. Obstet Gynecol. 2010;115(3):526-34. [DOI:10.1097/aog.0b013e3181d066d4]
14. Schwickert A, van Beekhuizen HJ, Bertholdt C, Fox KA, Kayem G, Morel O, et al. Association of peripartum management and high maternal blood loss at cesarean delivery for placenta accreta spectrum (PAS): A multinational database study. Acta Obstet Gynecol Scand. 2021;100 Suppl 1:29-40. [DOI:10.1111/aogs.14103]
15. Collins SL, Ashcroft A, Braun T, Calda P, Langhoff-Roos J, Morel O, et al. Proposal for standardized ultrasound descriptors of abnormally invasive placenta (AIP). Ultrasound Obstet Gynecol. 2016;47(3):271-5. [DOI:10.1002/uog.14952]
16. Markfeld Erol F, Häußler JA, Medl M, Juhasz-Boess I, Kunze M. Placenta Accreta Spectrum (PAS): Diagnosis, Clinical Presentation, Therapeutic Approaches, and Clinical Outcomes. Medicina (Kaunas). 2024;60(7):1180. [DOI:10.3390/medicina60071180]
17. Pala Ş, Atilgan R, Başpınar M, Kavak E, Yavuzkır Ş, Akyol A, et al. Comparison of results of Bakri balloon tamponade and caesarean hysterectomy in management of placenta accreta and increta: a retrospective study. J Obstet Gynaecol. 2018;38(2):194-9. [DOI:10.1080/01443615.2017.1340440]
18. Palacios Jaraquemada JM, Pesaresi M, Nassif JC, Hermosid S. Anterior placenta percreta: surgical approach, hemostasis and uterine repair. Acta Obstet Gynecol Scand. 2004;83(8):738-44. [DOI:10.1111/j.0001-6349.2004.00517.x]
19. Nieto-Calvache AJ, Palacios-Jaraquemada JM, Vergara-Galliadi LM, Matera L, Sanín-Blair JE, Rivera EP, et al. All maternal deaths related to placenta accreta spectrum are preventable: a difficult-to-tell reality. AJOG Glob Rep. 2021;1(3):100012. [DOI:10.1016/j.xagr.2021.100012]
20. Nieto-Calvache AJ, Palacios-Jaraquemada JM, Osanan G, Cortes-Charry R, Aryananda RA, Bangal VB, et al. Lack of experience is a main cause of maternal death in placenta accreta spectrum patients. Acta Obstet Gynecol Scand. 2021;100(8):1445-53. [DOI:10.1111/aogs.14163]
21. Shamshirsaz AA, Fox KA, Erfani H, Clark SL, Shamshirsaz AA, Nassr AA, et al. Outcomes of Planned Compared With Urgent Deliveries Using a Multidisciplinary Team Approach for Morbidly Adherent Placenta. Obstet Gynecol. 2018;131(2):234-41. [DOI:10.1097/aog.0000000000002442]
22. Vyshka G, Capari N, Shaqiri E. Placenta increta causing hemoperitoneum in the 26th week of pregnancy: a case report. J Med Case Rep. 2010;4:412. [DOI:10.1186/1752-1947-4-412]

How to Cite This Article:

Farah, F., Hekmatnia, K., Abbasi, H., Jayervand, F., Kheradmand, A. Unusual Presentation of Placenta Accreta Spectrum with Gastrointestinal Problems at 27 Weeks of Gestation: A Case Report. J Obstet Gynecol Cancer Res. 2025;10(10):798-802.

Download citation: RIS | EndNote | Mendeley | BibTeX |