International Journal of Academic Health and Medical Research (IJAHMR)
ISSN: 2643-9824
Vol. 8 Issue 11 November - 2024, Pages: 65-69

Fundal Placenta Accreta: A Case Report and Review of the Literature

Adil ELGHANMI[1;2], Leila ABDALLAOUI MAANE[1], Bouchra GHAZI[3], Karima FICHTALI[1]

[Corresponding author: Adil ELGHANMI; aelghanmi@um6ss.ma; Bd Mohammed Taïeb Naciri, Hay Hassani, 82 403 Casablanca, Maroc]

[1]Department of Gynecology and Obstetrics, Mohammed VI International University Hospital, Bouskoura, Morocco. Faculty of Medicine, Mohammed VI University of Health and Sciences (UM6SS), Casablanca, Morocco

[2]Correspondence to [aelghanmi@um6ss.ma; +212661427361]; Associate Professor of Gynecology and Obstetrics; Faculty of Medicine, Mohammed VI University of Health and Sciences (UM6SS), BP 82403 Casa Oum Rabii, Hay Hassani
Boulevard Mohamed Taieb Naciri, Casablanca, Morocco.

[3] Immunopathology-Immunotherapy-Immunomonitoring Laboratory, Mohammed VI International University Hospital, Bouskoura, Morocco. Faculty of Medicine, Mohammed VI University of Health and Sciences (UM6SS), Casablanca, Morocco

Abstract : *Placenta accreta is defined as an abnormal adherence of the placenta to the myometrium, resulting from a defect in implantation and decidualization of the basal decidua. This condition is becoming increasingly common in modern obstetrics, with a scarred uterus being the main risk factor. Ultrasound and magnetic resonance imaging (MRI) play a crucial role in the diagnosis and therapeutic strategy. We report a case of fundal placenta accreta identified in our facility. The patient, a 39-year-old woman with a history of two uterine scars, presented at 19 weeks of amenorrhea with metrorrhagia. Obstetric ultrasound and MRI confirmed the presence of fundal placenta accreta. Through this case, we discuss the radiological diagnostic approach and therapeutic management of this rare localization of placenta accreta.*

Keywords : Fundal Placenta Accreta, Myometrial Invasion, Placenta Accreta Spectrum, Prenatal Diagnosis of Placenta Accreta

Introduction

Placenta accreta is defined as an abnormal adherence of the placenta to the myometrium, resulting from defective implantation and decidualization of the basal decidua. The localized or diffuse absence of this basal decidua, which typically interposes between the chorionic villi and the myometrium, characterizes placenta accreta [1]. It has also been shown that placenta accreta is often associated with chronic basal inflammation and an increased lymphocytic infiltrate [2]. Today, the term "placenta accreta spectrum" is used to describe a range of pregnancy complications arising from various forms of abnormal placental implantation [3].

Despite numerous studies on the diagnostic techniques and management of placenta accreta, there is limited research on fundal placenta accreta, which occurs away from the uterine scar. We present a case of fundal placenta accreta and discuss the radiological methods for diagnosing this condition.

Case report

A 35-year-old female patient was referred to us for metrorrhagia during her 19th week of pregnancy. She had a history of two caesarean sections, resulting in double uterine scarring. The patient was in generally good health, with normal blood pressure, no fever, and slight pallor. She experienced no uterine contractions. A speculum exam revealed bleeding from the endocervix, with the cervix being firm, long, and posterior.

Obstetrical ultrasound indicated a progressing single-fetus pregnancy at 19 weeks and five days with oligohydramnios, which caused increased umbilical artery resistances. A centroplacental hematoma was also identified, with a strong suspicion of placenta fundi accreta (Figure 1).

MRI confirmed an anterior centroplacental hematoma measuring 6 cm along its long axis, exhibiting T1 and T2 hyperintensity without an identifiable retroplacental component. The placenta appeared heterogeneous with hyperintense lakes, consistent with a fundal placenta and signs of myometrial invasion, suggestive of placenta accreta (Figure 1).

During follow-up, the patient continued to experience bleeding, showing signs of deglobulation, with hemoglobin levels dropping from 10 g/dL to 8 g/dL, and then to 6 g/dL.

An emergency extraction was decided upon. Upon opening the uterus, hemorrhagic amniotic fluid was noted. After a slow intravenous injection of 5 IU of Ocytocine, gentle traction was applied to the umbilical cord, followed by artificial placental delivery. The uterine revision was conservative. Significant bleeding from the placental bed ensued. A 10 IU infusion of Ocytocine, combined with sulprostone (a synthetic prostaglandin E2 derivative), was administered, and the bleeding subsided.

Immediate postpartum monitoring in the recovery room showed no hemorrhage. The patient was observed in the intensive care unit for 24 hours without incident and was discharged on postoperative day five. Clinical follow-up on day 12 revealed no complications. Anatomopathological examination confirmed the presence of placenta accreta.

Discussion

The placenta presents significant challenges in modern obstetrics, primarily due to the substantial risk of hemorrhage it poses. The diagnostic profile of placenta accreta varies with the stage of pregnancy [4,5]. Over the past four decades, the incidence of placenta accreta has risen, largely attributed to the increase in cesarean section rates [3].

Several other factors contribute to this condition, including maternal age over 35, uterine revisions, uterine perforations during hysteroscopies, hemostatic curettage, and elective abortions. Additionally, a history of myomectomy, Asherman's syndrome, submucosal fibroids, and trophoblastic diseases are recognized as risk factors [6].

The immune system is also implicated, with studies suggesting that a decrease in decidual NK (dNK) cells is inversely correlated with the degree of invasion by extravillous invasive trophoblasts [2]. In our case, the patient had two previous cesarean sections without any history of fundal lesions. Placenta accreta located in the upper part of the uterus is typically asymptomatic and often only discovered during cesarean sections or challenging deliveries [7].

Ultrasound is a valuable diagnostic tool for placenta accreta, with a sensitivity of 77%, specificity of 96%, positive predictive value of 65%, and negative predictive value of 98%. Key ultrasound indicators include the presence of intraplacental lacunae, thinning of the myometrium, and irregularity of the vesico-uterine line [8].

Doppler ultrasound enhances diagnosis by revealing turbulent arterial or venous blood flow in the intraplacental lacunae and identifying abnormal vascularization penetrating the myometrium.

Placental MRI, which offers three-dimensional imaging, is not constrained by the field of view limitations of ultrasound and provides greater accuracy in diagnosing myometrial invasion. MRI has a sensitivity of 88%, specificity of 100%, positive predictive value of 100%, and negative predictive value of 82% [9].

Treating placenta accreta requires a comprehensive therapeutic approach, advanced technical support, and a multidisciplinary team [5]. Surgical options include both conservative treatments and radical treatments (cesarean hysterectomy). Conservative treatments encompass placental bed suturing, myometrial resection, triple vascular ligations, hypogastric artery ligation, and leaving the placenta in situ, the latter being used for placenta percreta when no cleavage plane is present [7]. This approach, however, carries risks of infection, thromboembolism, and coagulation disorders. Arterial embolization is a valuable technique for managing placenta accreta, as it helps to block the blood vessels supplying the placental bed, facilitating better surgical control.

Conclusion

Placenta accreta presents a serious obstetric challenge, necessitating precise diagnosis and effective management strategies. This case underscores the importance of early detection through advanced imaging techniques and highlights the success of a multidisciplinary approach in navigating this complex condition. Furthermore, prevention efforts should focus on minimizing the incidence of Caesarean sections and intrauterine interventions. Moving forward, continued

research and implementation of preventative measures are crucial for improving outcomes in pregnancies at risk of placenta accreta.

Authors contributions

- Adil ElGHANMI played a significant role in the diagnosis and treatment of the patient, making substantial contributions to the conception of the work and the analysis and interpretation of data. Was involved in drafting the work and critically reviewing it for important intellectual content, ultimately giving final approval of the version to be published. Also agreed to be accountable for all aspects of the work, ensuring that any questions related to the accuracy or integrity of any part of the work were appropriately investigated and resolved.

- Leila ABDALLAOUI MAANE: Made substantial contributions to the conception of the work, actively participated in the analysis and interpretation of data, and critically reviewed the work for essential intellectual content. Her final approval of the version intended for publication reflects her dedication to ensuring the accuracy and integrity of all aspects of the work, with a commitment to investigating and resolving any related questions.

- Bouchra GHAZI: Made substantial contributions to the conception of the work, actively participated in the analysis and interpretation of data, and critically reviewed the work for essential intellectual content. Her final approval of the version intended for publication reflects her dedication to ensuring the accuracy and integrity of all aspects of the work, with a commitment to investigating and resolving any related questions.

- Karima FICHTALI: played a significant role in the diagnosis and treatment of the patient, making substantial contributions to the conception of the work and the analysis and interpretation of data. Was involved in drafting the work and critically reviewing it for important intellectual content, ultimately giving final approval of the version to be published. Also agreed to be accountable for all aspects of the work, ensuring that any questions related to the accuracy or integrity of any part of the work were appropriately investigated and resolved.

Funding

None

Conflicts of interest

The authors declare there are no conflicts of interest

Figures

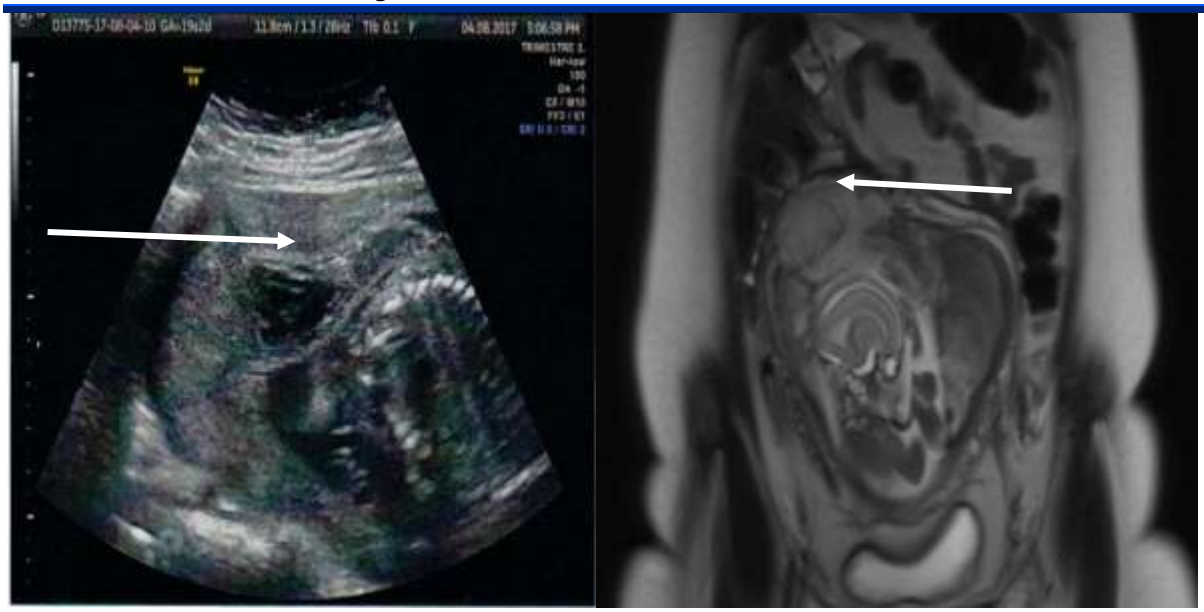

Figure 1 : à droite : Hématome centroplacentaire à 19 SA et aspect du placenta accreta. A gauche : IRM coupe sagittale montrant des signes de placenta accreta fundique

Légendes :

Figure 1 : à droite : Hématome centroplacentaire à 19 SA et aspect du placenta accreta. A gauche : IRM coupe sagittale montrant des signes de placenta accreta fundique.

Références

1. Riteau A-S, Tassin M, Chambon G, Le Vaillant C, de Laveaucoupet J,

Quéré M-P, et al. Accuracy of Ultrasonography and Magnetic Resonance

Imaging in the Diagnosis of Placenta Accreta. Lo AWI, editor. PLoS ONE.

2014 Apr 14;9(4):e94866.

2. Bartels HC, Postle JD, Downey P, Brennan DJ. Placenta Accreta Spectrum:

A Review of Pathology, Molecular Biology, and Biomarkers. Dis Markers.

2018 Jul 3;2018:1–11.

3. Hobson SR, Kingdom JC, Murji A, Windrim RC, Carvalho JCA, Singh SS,

et al. No 383 – Dépistage, diagnostic et prise en charge des troubles du

spectre du placenta accreta. J Obstet Gynaecol Can. 2019 Jul;41(7):1050–

66.

4. Fitzpatrick KE, Sellers S, Spark P, Kurinczuk JJ, Brocklehurst P, Knight M.

Incidence and Risk Factors for Placenta Accreta/Increta/Percreta in the UK:

A National Case-Control Study. Baradaran HR, editor. PLoS ONE. 2012

Dec 27;7(12):e52893.

5. Jauniaux E, Hussein AM, Fox KA, Collins SL. New evidence-based diagnostic and management strategies for placenta accreta spectrum disorders. Best Pract Res Clin Obstet Gynaecol. 2019 Nov;61:75–88.

6. Engelbrechtsen L, Langhoff-Roos J, Kjer JJ, Istre O. Placenta accreta: adherent placenta due to Asherman syndrome. Clin Case Rep. 2015 Mar;3(3):175–8.

7. Wang Y-L, Duan X-H, Han X-W, Zhao X-L, Chen Z-M, Chu Q-J. Abnormal placentation: the role of MRI in diagnosis and therapeutic planning. Clin Radiol. 2017 Feb;72(2):176.e9-176.e14.

8. Allen BC, Leyendecker JR. Placental Evaluation with Magnetic Resonance. Radiol Clin North Am. 2013 Nov;51(6):955–66.

9. Finberg HJ, Williams JW. Placenta accreta: prospective sonographic diagnosis in patients with placenta previa and prior cesarean section. J Ultrasound Med. 1992 Jul;11(7):333–43.