

An unusual case of central placenta praevia with a suspicion of placenta increta

Abstract

Total placenta praevia is used to describe a placenta that completely covers the internal os. Placenta increta is one of the most important complications of placenta praevia and requiring usually a hysterectomy. We report a case of central placenta praevia diagnosed by ultrasound in which we accomplished conservative management of postpartum period.

Keywords: placenta praevia, placenta increta, high risk pregnancy

Introduction

One of the most feared complications in obstetrics, the abnormally inserted placenta, according either to the distance to the internal cervical ostium or to the myometrium shows an increasing incidence⁽¹⁾.

The most important risk factors for this condition are: obstetrical history of multiple uterine scarring, advanced maternal age, or pregnancy occurring on a recent or vicious uterine scar⁽²⁾. In front of such patient, the attitude should be an interdisciplinary collaboration that includes an obstetrician, an anesthetist, a neonatologist and a surgeon to improve both maternal and fetal prognosis. Cesarean surgery is the therapeutic choice for delivery, but often it is associated with hysterectomy due to the major risk of massive bleeding^(1,2). If, however, the desire is to preserve the fertility of the patient, saving the uterus may be attempted, depending on the particularities of the case. The prompt and correct diagnosis of abnormally inserted placenta is essential for the management of these high-risk pregnancies. We report the case of a patient with placenta praevia and suspicion of placenta increta, in which the uterus was preserved.

Case report

We report a case of a 27-year-old pregnant patient who was brought to the emergency room for lipothymy. She was nine-months pregnant, with a poorly investigated pregnancy and could provide only one ultrasound report performed at 33 weeks. She had four vaginal deliveries and one by cesarean section, which was performed one year ago.

During the current pregnancy the patient stated that she had never had a hemorrhage or other symptoms, except having syncope prior to arriving at the hospital. At 33 weeks of gestation, the patient had a biometric ultrasound showing that the placenta completely covers the internal ostium and that there is no clear space between

the placental situs and the anterior uterine wall - possibly placenta increta.

The patient was admitted in the Department of Obstetrics and Gynecology of University Emergency Hospital in Bucharest. An ultrasound examination was performed, showing a live, apparently healthy 38 weeks fetus. The placenta is anterior, discretely inhomogeneous and covers the internal cervical opening - placenta praevia with the suspicion of increta (Figure 1).

Laboratory blood, urine and bacteriology tests were normal, except for mild anemia. Taking into account the major risk of massive intraoperative hemorrhage, the patient was informed about the complications and the possibility of carrying out a hysterectomy of necessity. A complex surgical team performed a medio-corporal cesarean section. A male newborn weighting 3800g with an APGAR score of 9 was extracted. Intraoperative we observed a dehiscence portion of the old uterine scar without peritoneal involvement, on the surface of which the placenta was inserted abnormally. The placenta, although covering the internal cervical orifice, did not penetrate the vesico-uterine peritoneum and thus denies the diagnosis of placenta increta (Figure 2).

Intraoperative extraction of the placenta was achieved and uterine retraction, without the need for hysterectomy. Post-operative evolution was favorable under utero-tonic therapy. Control ultrasound examination was performed and highlighted a normal-looking uterus and hysterotomy line. Five days after admission, the patient was discharged in good condition.

Placenta praevia is defined as the placenta partially or totally covering the internal cervical orifice, as according to classification below (Table 1).

The incidence of placenta praevia is 5 in 1000 pregnancies⁽¹⁾. Patients with abnormally inserted placentas also have and increased risk for having intrauterine growth restricted fetuses, due to poor placental resources⁽¹⁾. Risk

Monica
Cîrstoiu^{1,2#},
Delia Grădinaru-
Fometescu^{1#},
Diana Voicu¹,
Livi Popovici¹,
Octavian
Munteanu^{1,2},
Oana Bodean¹

1. Obstetrics and Gynecology
Department,
Bucharest Emergency
University Hospital,
Bucharest, Romania
2. "Carol Davila" University
of Medicine and Pharmacy,
Bucharest, Romania

Correspondence:
Dr. Diana Voicu
e-mail: voicu_diana1988@
yahoo.com

[#]Both authors have
contributed equally to this
article and should
be considered first author.

Received:
June 02, 2017
Revised:
July 25, 2017
Accepted:
September 02, 2017



Figure 1. Ultrasound images of a central placenta praevia, with no clear space between the uterine wall and the placental situs (placenta increta was suspected)

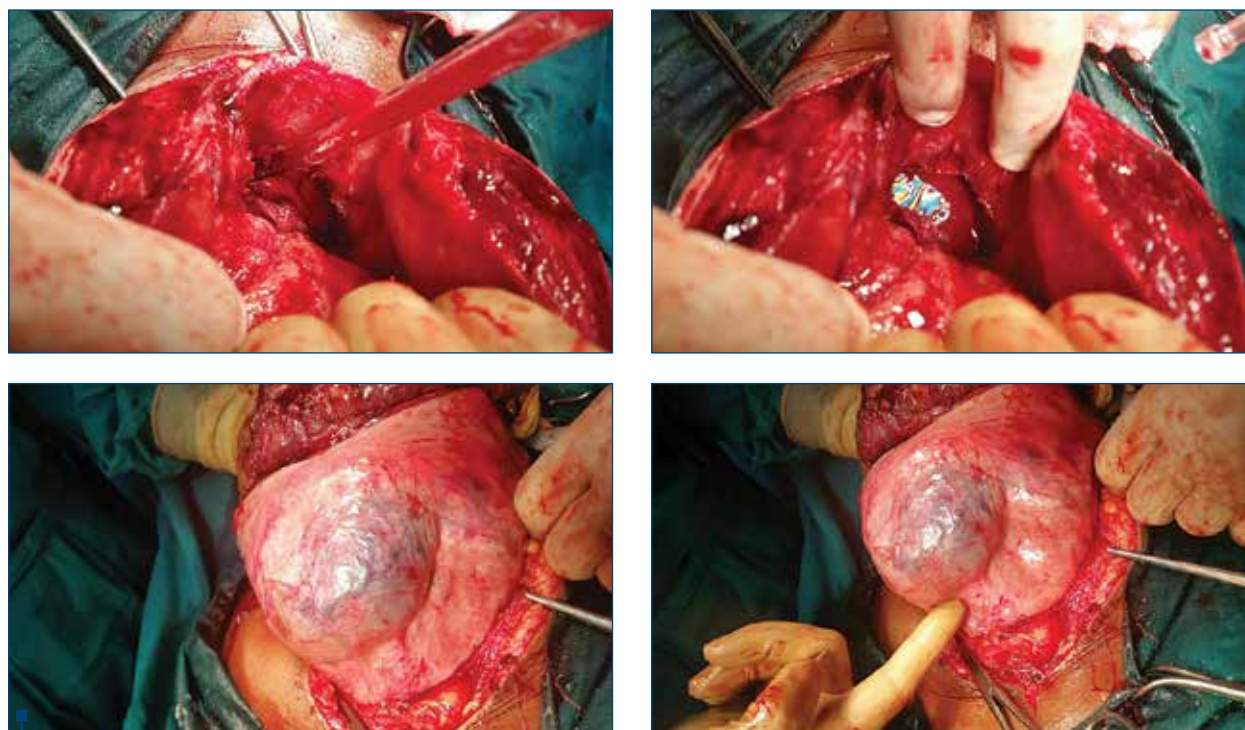


Figure 2. Intraoperative aspect of the placenta – note that the placenta was inserted on the uterine scar, without penetrating the uterine serosa

factors for developing an abnormally inserted placenta are described in Table 2.

Discussion

In the case of pregnant women with uterine scarring after caesarean delivery, the risk of placenta praevia increases proportionally with the number of previous births by caesarean section. Pregnant women who smoke also have an increased risk of placenta praevia, a mechanism explained by the need for a larger placental surface as a compensatory mechanism for insufficient oxygen or nutrient intake⁽³⁾. The diagnosis of certainty is achieved by transvaginal ultrasound⁽⁴⁾. Modern techniques in ultra-

sonography have increased the chances of early suspicion of placenta praevia, but many studies have shown that much of these sonographic findings of abnormally inserted placentas made as early as possible are not eventually maintained until birth or confirmed intraoperatively^(5,6).

According to the depth of placental invasion into the uterine wall, there are three types of abnormal placental insertion accrete, increta and percreta⁽⁷⁾.

For the diagnosis of placenta accrete the physician based usually on ultrasound features. The main ultrasound features which sustain the diagnosis of placenta accreta include: loss of normal hypoechoic retroplacental space, showing a particular aspect of “swiss cheese” or “moth

Table 1 Types of placenta praevia according to the relationship with the cervical internal ostium

Lateral placenta praevia	Placenta is inserted on the inferior segment, but its margins do not touch the internal cervical orifice.
Marginal placenta praevia	Placenta touches the internal cervical orifice.
Partially central placenta praevia	Placenta partially covers the internal cervical orifice.
Central placenta praevia	Placenta fully covers the internal cervical orifice

Table 2 Risk factors for abnormal placental insertion⁽²⁾

Maternal age >35
Multiparity
Short intervals between pregnancies
Previous uterine surgical interventions
Multiple cesarean sections (multiple uterine scarring)
Multiple abortions and uterine curettage
History of placenta praevia (4-8%)
Poor economic status
Smoking
Cocaine and drug use

eaten” area, or crossing the uterine serosa⁽⁸⁾. In the cases when ultrasound management is not conclusive, the magnetic resonance imaging (MRI) can be used in achieving the diagnosis. Although MRI should be carry out by an experienced person for this type of evaluation, the basic features for the placenta accreta should include uterine bleeding, heterogeneous signal intensity within the pla-

centa, and direct visualization of placental invasion into pelvic structures.
Furthermore, MRI should be considered an adjunctive modality to the diagnostic accuracy of ultrasonography⁽⁹⁾.

Conclusions

A diagnosis of central placenta praevia with a suspicion of placenta increta requires performing a caesarean section to avoid a life-threatening hemorrhage. Such cases must be managed by a specialized experienced team of obstetricians, surgeons, anesthesiologists and neonatologists due to possible complications.
In our case, the diagnosis of placenta increta was not confirmed intraoperative, since the placenta was inserted on the old uterine scar, but without invading into the peritoneum or the bladder. Therefore, the surgeon could gently remove the placenta and perform efficient hemostasis, without the necessity of also performing a hysterectomy. Maternal and neonatal prognosis were excellent, both mother and newborn being discharged 5 days later and being scheduled for the usual follow-up appointments. ■

References

1.Cresswell JA, Ronsmans C, Calver C, Filippi V. Prevalence of placenta praevia by world region: a systematic review and meta-analysis. Tropical Medicine & International Health 2013, 18(6), 712-24.

2. Gurol-Urganci I, Cromwell DA, Edozien LC. Risk of placenta previa in second birth after first birth cesarean section: a population-based study and meta-analysis. BMC Pregnancy Childbirth 2011, 11, 90-5.

3. Hasegaw J, Matsuoka R, Ichizuka K. Predisposing factors for massive hemorrhage during Cesarean section in patients with placenta previa. Ultrasound in Obstetrics and Gynecology 2009, 34, 80-4.

4. Townsend RR, Laing FC, Nyberg DA, Jeffrey RB, Wing VW. Technical factors responsible for placental migration: sonographic assessment. Radiology 1986, 160, 105-8.

5. Ananth CV, Demissie K, Smulian JC, Vintzileos AM. Placenta previa in singleton and twin births in the United States, 1989 through 1998: a comparison of risk factor profiles and associated conditions. Am J Obstet Gynecol 2003, 188, 275-81.

6. Smith RS, Lauria MR, Comstock CH, Treadwell MC, Kirk JS, Lee W. Transvaginal ultrasonography for all placentas that appear to be low-lying or over the internal cervical os. Ultrasound Obstet Gynecol 1997, 9, 22-4.

7. ACOG Committee on Obstetric, Practice (January 2002). ACOG Committee opinion. Number 266: placenta accreta. Obstetrics and gynecology. 2002, 99(1), 169-70.

8. Warshak CR.Accuracy of ultrasonography and magnetic resonance imaging in the diagnosis of placenta accreta. Obstetrics & Gynecology 2006, 108(3), 573-81.

9. Tikkanen M. Antenatal diagnosis of placenta accreta leads to reduced blood loss. Acta Obstetricia et Gynecologica Scandinavica 2011, (90), 1140-6.