

Placenta accreta on non-scarred uterus: About a case

Summary

Placenta accreta is an abnormally adherent placenta (abnormal adhesion of the placenta to the myometrium), due to the localized or diffuse absence of the decidua basalis. Its incidence increases with increasing cesarean section rates. Placenta accreta in a non-scarred uterus is very rare but remains possible due to other risk factors which are age, smoking, placenta previa and finally invasive endouterine procedures.

Among its consequences, we first note the hemorrhage of delivery which can be associated with significant maternal morbidity and mortality, uterine rupture and also the invasion of adjacent organs by the placental trophoblast.

We report an interesting case of placenta accreta on a non-scarred uterus discovered during a planned cesarean section for placenta previa. This is a 41-year-old patient with no history of scarred uterus, 5th procedure, 3rd parity, with history of spontaneous miscarriage cured at 2 months, pregnant at 39 weeks, unmonitored pregnancy, admitted to the maternity emergency room for two days before for delivery method where the parturient benefited from a clinical examination and an obstetric ultrasound showing a completely covering anterior placenta, amniotic fluid of normal quantity and an estimate of the fetal weight at 2800g, then scheduled for a cesarean section. The diagnosis of placenta accreta is made during cesarean section. We opted for radical treatment. Placenta accreta is a pathology at risk of serious hemorrhagic complications during pregnancy and the postpartum period. This should encourage us to systematically search for ultrasound criteria for placenta accreta. The ultrasound report, in these patients, must explicitly mention this. Adequate care in the presence of a multidisciplinary team makes it possible to limit the mortality and morbidity associated with this pathology.

Keywords: Placenta accreta, uterus, myometrium, embolization

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Tazi Zineb, Boumaaza Sara, Fdili Alaoui Fatimzehra, Jayi Sofia, Chaara Hikmat, Melhouf Moulay Abdelilah

Gynecology-Obstetrics Department, II- CHU Hassan II- Fez, Morocco

Correspondence: Tazi Zineb, Gynecology-Obstetrics Department, II-CHU Hassan II-Fez, Morocco, Email dr.tazineb@gmail.com

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Introduction

Placenta previa is a pathological location of a placenta inserted in the lower segment of the uterus;

The occurrence of placenta accreta is linked to an abnormal invasion at the site of implantation of the placenta resulting from an alteration of the decidua.¹ The term increta is used in cases of invasion of the myometrium while the term “percreta” refers to involvement of the serosa or even adjacent organs, the most common of which is the bladder. However, the term “accreta” is frequently used to group these three definitions together.

The incidence of placenta previa was significantly higher in women who had already undergone a cesarean section (1.31%) compared to those whose uterus had not suffered a scar (0.75%). The major morbidity associated with such abnormal primary placentation arises from the significant blood loss that occurs at the time of delivery. Additionally, pregnancies complicated by placenta accreta are believed to be associated with an increased incidence of uterine rupture, invasion of adjacent organs.

For a long time, the standard treatment for placenta accreta was hysterectomy. Currently, a conservative therapeutic strategy is being developed to try to preserve the subsequent fertility of patients. It consists of leaving part or all of the placenta in situ, this technique is associated with several adjuvant treatments including triple uterine ligation, bilateral ligation of the hypogastric arteries, methotrexate or embolization. Clinical, biological and ultrasound monitoring is necessary to prevent complications mainly dominated by infection and the risk of septic shock.

Patient and observation

A 41-year-old parturient, 5th procedure, 3rd parity, with no history of scarred uterus. The course of the first and second pregnancies and their deliveries was vaginal and without complications. The third pregnancy is a spontaneous miscarriage cured at 2 months – The fourth pregnancy is the current pregnancy estimated at 39 weeks of amenorrhea. Admitted to the emergency room of the maternity ward for delivery due to suspicion of placenta previa on ultrasound done by a private gynecologist, on a 39-week pregnancy, pregnancy monitoring was normal. The clinical examination found a conscious patient, hemodynamically stable with a pulse at 70 beats per minute, a blood pressure at 110/60 mm Hg, a temperature at 37, labstix negative, the obstetric examination revealed a supple abdomen without uterine contracture, uterine height of 32cm, negative uterine contractions, fetal heart tones perceived oscillating and regular at 140 beats per minute, vaginal examination not done in the face of suspicion of placenta previa. Obstetric ultrasound revealed an evolving singleton pregnancy, the fetal heart rate was normal and regular, the fetus in cephalic presentation, the measurements corresponding to the term, the fetal weight was estimated at 2800g, the amniotic fluid was of normal quantity, anterior placenta totally covering. The patient underwent a cesarean section during which delivery was impossible with the discovery of a placenta completely adhering to the myometrium which was in favor of a complete placenta accreta, the cord was then cut leaving the placenta intrauterine with performance of a hysterorrhaphy (Figure 1). The decision was to convert to an interadnexal hysterectomy. The patient was transfused intraoperatively with 2 iso-isorhesus group red blood cells and 3 PFCs. Post-operative outcomes were good. Patient declared discharged on day +5 of the postoperative period accompanied by her baby.

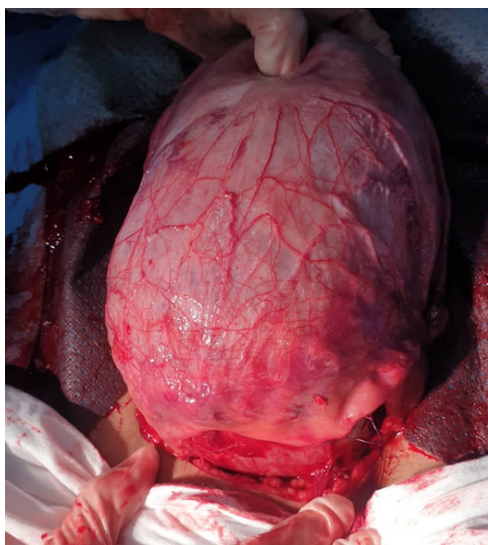


Figure 1 Appearance of the uterus after hysterorrhaphy leaving the placenta in utero.

Discussion

The incidence of placenta accreta has increased in recent years.² This progression is directly correlated to the damage or absence of the decidua basalis, the relationship between previous uterine surgery and risk of placenta previa and accreta is increasingly important. It has been noted that a previous cesarean delivery doubles the risk of placenta previa in a subsequent pregnancy, such that the incidence increases from 0.38 to 0.63%. Placenta accreta becomes more common when the placenta is previa, its incidence in this setting being estimated at approximately 10%.³ The precise etiology of placenta accreta is still unknown, but risk factors exist. Any quantitative or qualitative deficiency of decidua creates an area conducive to uncontrolled invasion of the trophoblast and therefore to the occurrence of placenta accreta. This anomaly of the decidua occurs following lesions of the endometrial mucosa, themselves secondary to sequelae of chronic postpartum or post-abortion endometritis, or to traumatic scars of the uterus, usually of a fibrous nature, on which the endometrium cannot develop normally.⁴ Risk factors for placenta accreta include previous cesarean section especially corporal incisions, uterine instrumentation and intrauterine scarring, placenta previa, myomectomy of submucosal and interstitial myomas, especially when there is had rupture of the uterine cavity, recurrent miscarriages and grand multiparity, maternal age greater than 35 years, smoking. In most cases, placenta accreta is a combination of many factors.^{5,6} The term “placenta accreta”, used generally, implies three groups defined by the degree of trophoblastic invasion within the myometrium: Placenta accreta is an abnormal adhesion of the chorionic villi to the myometrium without invading it. this variety represents 75% of cases, Placenta increta: deep invasion of the chorionic villi in the myometrium up to the serosa without going beyond it. this represents 15% of cases, placenta percreta: invasion of the chorionic villi throughout the myometrium crossing the serosa and can invade neighboring organs. However, the term «accreta» is used generically for these three types.⁷ Contrary to numerous reports, where placenta accreta has been diagnosed in patients with a scarred uterus, our patient had a non-scarred uterus but she presents as a risk factor advanced age, multiparity and especially the notion of curettage after a false diaper, and therefore in front of this notion we must think about the diagnosis of placenta accreta.

The clinic is often quiet during pregnancy. The definitive diagnosis of placenta accreta is based on histological examination and it is therefore more accurate to use the term «prenatal screening» than «prenatal diagnosis». The benefit of prenatal screening is to organize delivery in a maternity ward with a suitable technical platform. Prenatal screening is generally suspected in view of risk factors and explored by ultrasound which has become the main screening tool for women at risk of placenta accreta, and imaging by Magnetic Resonance (MRI).⁸ Ultrasound is the first-line examination for the detection of placenta accreta. The ultrasound signs classically described are the presence of “gruyere cheese” placental lacunae: this appearance probably corresponding to the large dilated vessels which move towards the myometrium, the absence of a hypoechoic border between the placenta and the myometrium, an interruption of the hyperechoic zone at the interface of the uterus serosa and the bladder, and the presence of a pseudo-tumorous appearance of the placenta next to the uterine serosa.⁸ MRI remains a 2nd intention examination and must always be carried out after exploration by Doppler ultrasound. A recent series evaluated its sensitivity at 88% and its specificity at 100% when used as second line after ultrasound suspicion of placenta accreta.⁹ This examination remains expensive and difficult to access. MRI should be reserved for placentas which cannot be adequately explored by ultrasound or in the event of suspicion of placenta accreta/percreta in order to confirm or refute the diagnosis and establish possible invasion to neighboring organs. However, it presents an undeniable advantage for specifying the degree of bladder invasion of the placenta and especially for establishing the diagnosis in posterior placental insertions.^{10,11} In many cases, the diagnosis of placenta accreta is made at delivery, most often because it was not mentioned by the clinician during pregnancy. This is then done during childbirth in the face of delivery failure due to the absence of a cleavage plane between the uterus and the placenta as in our case. The anatomopathological diagnosis must be made on a hysterectomy specimen. The macroscopic examination may show a rupture of the maternal surface related to an abnormal focal adhesion, however the accreta zone may not be detected macroscopically, hence the need to make several sections for the microscopic study which can objectify the absence of the decidua between the chorionic villi and the myometrium, as well as smooth muscle cells next to the placental villi.¹²

The management is based on planned cesarean section at 34 weeks of gestation with a hysterectomy which is considered the «gold standard», and consists of a hysterectomy after the birth of the child without an attempt at artificial delivery when the prenatal diagnosis of placenta accreta has been performed, or after an attempted artificial delivery when the diagnosis of placenta accreta is made intraoperatively.⁸ This option could reduce maternal morbidity, but it necessarily leads to the loss of fertility of the patient. Conservative treatment with the placenta left in place can be considered in the absence of hemorrhage. In case of moderate bleeding, arterial ligation possibly associated with uterine padding (in case of cesarean section) or arterial embolization (in case of vaginal delivery) can be performed but a hysterectomy must be performed in case of failure or severe hemorrhage from the outset. Conservative treatment, leaving all or part of the placenta in place, has been successfully described by several authors.^{13,14} Conservative therapeutic failures have also been the subject of clinical cases describing the occurrence of secondary hemorrhage after the cesarean section, sometimes putting the patient's vital prognosis at stake.¹⁵ In the absence of a subsequent desire for pregnancy, a hysterectomy performed immediately following the cesarean section is appropriate if the risk factors and imaging are highly suggestive of the diagnosis. Eller et al, reported in a series of 76 cases of cesarean-hysterectomy for placenta accreta a rate of

transfusion (≥ 4 CGR) of 42%, cystotomy of 29%, ureteral wounds of 7%, infectious complications of 33 %, and major morbidity of 59%.¹⁶ In 2009 they reported a false positive rate of placenta accreta of 28%, after anatomopathological analysis of hysterectomy specimens.¹⁷ In our case, a radical treatment (hemostasis hysterectomy) was carried out successfully.

Conclusion

The incidence of placenta accreta is increasing and is increasingly part of the daily life of obstetricians. Radical treatments, whether they consist of a complete delivery of the placenta or an immediate hysterectomy when the diagnosis is very strongly suspected, retain their indications, but recent data seem to show that a conservative policy decided on a case by case basis with the patient can help preserve fertility. The modalities for optimal care still need to be defined. Some strategies appear promising with arterial vascular ligations and arterial embolization. However, this conservative attitude is not without risk, especially infectious complications and the risk of septic shock. A history of cesarean section or an instrumental maneuver (curettage) with the existence of placenta previa define a population at risk of placenta accreta; for which screening should be systematic.

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Conflicts of interest

All authors declare that they have no conflict of interests.

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