

Placenta Previa Percreta: A Case Report

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Article History

Received: 25.07.2018

Accepted: 05.08.2018

Published: 30.09.2018

DOI:

10.36347/sjmcr.2018.v06i09.006



Abstract: The placenta percreta is defined by an abnormal invasion of the placenta in the myometrium, the serosa or even the neighboring organs. Its incidence has steadily increased with the evolution of the caesarean section rate. This pathology poses a significant risk of morbidity and maternal mortality 7%. Prenatal screening is very important for high-risk patients. Doppler-coupled ultrasound and MRI are the key to prenatal screening. For many years hysterectomy was the classic treatment for placenta accreta. The current trend is conservative treatment aimed at preserving fertility and preventing vital bleeding risk by ensuring better bladder or digestive functional prognosis. We report the case of a patient treated for placenta previa percreta discovered prenatally and who underwent a total hysterectomy at a caesarean section programmed at 36SA.

Keywords: placenta previa, hysterectomy, placenta percreta.

INTRODUCTION

The placenta percreta is defined by an abnormal invasion of the placenta in the myometrium, the uterine serosa or even the neighboring organs (bladder, rectum, pelvic vessels, large ligaments, ureters ...) and it represents 6.5% of placentas accretas. It is a rare pathology, but its incidence has steadily increased in recent years as the rate of caesarean section has changed.

It is associated with a high risk of morbidity and maternal mortality (7%).

Accreta placentas expose a major risk of severe postpartum hemorrhage and its inherent complications such as disseminated intravascular coagulation, hemostasis hysterectomy, surgical wounds of the ureters, bladder, and even maternal death, especially in case of placenta percreta [1, 2]. Prematurity is the main fetal complication. Antenatal screening is very important in high-risk patients (placenta previa, scar uterus, age over 35 years). It is based on color doppler-coupled ultrasound and MRI. This has improved the management of pathology.

For many years hysterectomy was the classic treatment for placenta accreta. The current trend is conservative treatment aimed at preserving fertility and preventing vital bleeding risk by ensuring a better bladder or digestive functional prognosis [3]. We present the case of a patient treated for placenta previa percreta discovered prenatally and who received radical treatment.

A CASE REPORT

The patient, 36 years old, G4P4, with a history of 3 Caesarean term deliveries, first caesarean was performed for acute fetal distress at 38SA, the second

for a limited pelvis on a cicatricial uterus at 38 + 2 days, and the third for a bi-cicatricial uterus.

The patient was admitted to gynecological and obstetric emergencies at 31 weeks of amenorrhea for low-grade third trimester bleeding. Clinical examination revealed TA 130/70 mmhg, pulse at 85batt / min, low-abundance non-active genital bleeding.

A recording of the fetal heart rate was performed which was without abnormality. The patient received a tocolysis with Nifedipine 10 Mg (Adalate): 1 tablet orally every 15 minutes for 1 hour, then a relay by Chronadalate 30mg: 1 tablet every 8 hours. Fetal maturation by corticosteroid therapy was performed with Betamethasone 12 mg / day for 48 hours intramuscularly.

Ultrasonography, systematically performed, describing an active pregnancy with a eutrophic fetus, a strong suspicion of a placenta previa completely covering the internal orifice of the cervix. At the color Doppler a probable form percreta by a loss of hypoechogene border under placental and a vascularization on the anterior face of the uterus, crossing its thickness arriving until the posterior wall of the bladder.

An MRI was performed which revealed the suspicion of a completely overlapping placenta percreta previa with transmural invasion of the myometrium, a

rupture of the fatty border of the utero-vesical separation and without involvement of the bladder (Figure 1, 2, 3).

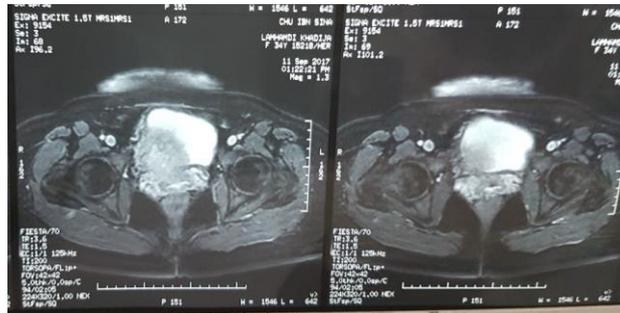


Fig-1: a T2 cross section of a pelvic MRI that shows placenta percreta

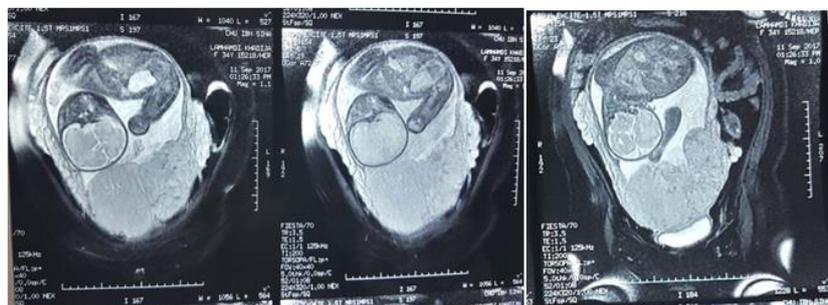


Fig-2: Placental MRI: frontal section, invasion of the myometrium by the placenta, disappearance of the basal line, rupture of the greasy border of utero vesical separation.



Fig-3: Sagittal section of a pelvic MRI: placenta praevia completely covering type percreta

A decision of radical treatment at the caesarean section scheduled at 36 SA was taken after a medical staff. Knowing that the patient is no longer eager for a new pregnancy. Under general anesthesia, a caesarean section was performed by median umbilical laparotomy. Fundic body hysterotomy above the placental insertion allowing the birth of a newborn weighing 2000g, healthy.

The placenta is left in place after ligation / umbilical cord section at its insertion. A total hysterectomy was performed. A redon drain left in place. Total blood loss was estimated at 2000 ml. As hemoglobin decreased from 11g / dl to 6g / dl preoperatively, a transfusion of 3 red blood cells was

performed. The postoperative course was simple. The Redon drain was removed on day 2.

DISCUSSION

The incidence of placentas accretas varies from 1/500 to 1/2500 deliveries or about 10% of previa forms. The incidence of percreta forms is fortunately very low, which represents 6.5% of placentas accretas, ie 1 / 40,000 deliveries [4, 5]. This can be explained by the increase in the number of deliveries, particularly by caesarean section.

The incidence of concomitant bladder invasion is much lower, occurring in about 1 birth in 10,000 [6]. The major risk factors for placenta percreta and accreta are placenta previa, a history of caesarean

section, and advanced maternal age greater than 35 years [7]. Our patient with an age greater than 35 years, 3 previous cesarean sections and one placenta previa had a very high risk of placental insertion abnormality.

Until today, antenatal diagnosis of placenta percreta is only possible in 50% of cases [8]. Clinical signs, especially metrorrhagia, are not very specific, but also hematuria, which remains specific but rather rare. Antenatal screening could help avoid complications such as life-threatening massive bleeding, and arrange for adequate departmental care with a full and experienced obstetric team. Antenatal diagnosis is based on two imaging techniques: Doppler-coupled ultrasound and Magnetic Resonance Imaging.

Pelvic ultrasound with Doppler color is the gold standard in the diagnosis of placenta accreta [9, 10], which will objectify the disruption of the placental internal flow, the presence of intracental gaps generally in relation to the uterine scar, the absence of the hypochoic border between the placenta and the myometrium, the interruption of the hyperechoic zone at the interface of the uterine serosa and the bladder with a thinning of the myometrium opposite the bladder [11, 12]. The MRI is the second-line examination that can sometimes provide additional diagnostic arguments [11, 13] and allows a locoregional assessment in case of extra uterine invasion [14].

The search for biological markers in the maternal blood is under study. Alpha-Fetoprotein, which would be abnormally high in patients at risk of placenta accreta. Kupfermanc et al. found high levels of alfa-fetoprotein in the maternal blood (between 2.7 and 40.3 MoM [multiple of the median] in 45% of patients with placenta accreta (for rates below 2 MoM in a control group) [15]. The definitive diagnosis of placenta accreta can only be made by anatomopathological examination of the hysterectomy piece. Improvement of prenatal diagnosis allows good management of placenta accreta.

Despite exposure to a very major bleeding risk with 6% maternal mortality and over 70% urological complications [26], the American College of Obstetrics and Gynecology (ACOG) recommends radical treatment by caesarean hysterectomy without attempt of delivery [11]. It is the safest treatment, performed towards 36 SA-38SA to prevent neonatal complications related to prematurity. Its major disadvantage is the loss of fertility, which may seem particularly unjustified when the placenta accreta is not confirmed histologically [16].

In the case of placenta percreta with bladder involvement, management should be multidisciplinary in cooperation with urologists. Hysterectomy is more complex and is often accompanied by urologic

complications (72%): partial cystectomy (44%), urinary fistula (13%), macroscopic hematuria (9%), ureteral reimplantation (6%), bladder laceration (26%) [17]. The role of cystoscopic ureteral catheter placement is to minimize ureteric complications [18, 19].

The Conservative treatment, leaving part or the entire placenta while preserving the uterus [26], prevents cataclysmic bleeding and preserves subsequent fertility by retaining the uterus. Therefore, it seems more reasonable to attempt conservative treatment as a first-line treatment [20].

Arterial vascular ligation, uterine artery embolization and methotrexate are the adjunct to conservative therapy. The arterial vascular ligations (hypogastric, or Tsirulnikov triple ligation) have been largely performed in the treatment of severe bleeding from delivery [21]. This technique seems reliable for controlling or preventing hemorrhage in case of placenta accreta.

More recently, the use of methotrexate has been proposed with varying success. It is indicated in the conservative treatment to shorten the delay of placental necrosis. It is a method of choice to preserve fertility. It is also indicated in cases of placenta percreta with invasion of neighboring organs [11]. It represents a lower morbidity than hysterectomy.

As for the postoperative complementary embolization of the uterine arteries, it allows the resorption of the placenta by decreasing the uterine vascularization; this one can reduce in 90% of the postpartum haemorrhages [14]. It is often associated with ligation of the hypogastric arteries.

It should be noted that these preventive devascularization techniques expose the patient to the complications of uterine necrosis for embolization. Compared to radical treatment, the main disadvantage of conservative treatment is the need for clinical, radiological and biological monitoring prolonged by several months because of the risk of rebleeding. Placental resorption requires an average of five to six months [22].

The subsequent obstetric prognosis, after conservative treatment, does not appear to be impaired [23]. The risk of recurrence of placenta accreta in case of new pregnancy is estimated at 30%.

It is difficult to compare maternal morbidity after caesarean hysterectomy and conservative treatment because of the limited number of studies in this component. However, maternal morbidity is increased in case of conservative treatment, infectious complications, uterine necrosis and secondary haemorrhage in case of conservative treatment can be

dramatic. Lee et al. believe that it makes sense to propose delayed hysterectomy within six to eight weeks of cesarean section [24].

In the case of placenta percreta with bladder invasion, conservative treatment may have lower maternal morbidity than radical treatment (caesarean hysterectomy with +/- partial cystectomy) [25]. Broad-spectrum preventive antibiotic therapy is warranted. According to Brelle *et al.* 15% infectious complication for conservative treatment for 4% for caesarean section-hysterectomy.

CONCLUSION

The placenta accreta is a rare pathology but the incidence of placenta accreta is increasing. The increase in caesarean section practice and certain risk factors is allowing us to encounter more and more placental insertion abnormalities.

Doppler ultrasound coupled with color Doppler and MRI is the key to prenatal screening to organize appropriate care during childbirth. The antenatal diagnosis is mainly oriented in the association uterus cicatricial and placenta previa. It must be realized systematically in the patients at high risk and in case of strong suspicion of placenta accreta.

Radical treatment keeps its indication when the diagnosis is highly suspect and in case of failure of conservative treatment. Conservative treatment preserves the fertility of patients, reduces the morbidity associated with hysterectomy and reduces bleeding and transfusion risks. It should be noted that remote infectious and haemorrhagic complications remain possible, which justifies long clinical and radiological monitoring until complete resorption of the placenta.

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