

Case Report

Conservative and timely treatment in retained products of conception: a case report of placenta accreta retention

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Abstract: The term retained products of conception (RPOC) refers to intrauterine tissue that develops after conception and persists after medical and surgical pregnancy termination, miscarriage, and vaginal or cesarean delivery. One of the most important factor risk for RPOC is placenta accreta, defined as "the abnormal adherence, either in whole or in part, of the afterbirth to the underlying uterine wall". We report a case of a 37 years old woman referred to our gynecologic department with irregular vaginal bleeding. On her medical history, she had a cesarean occurred 3 months before. Ultrasonography revealed in the uterine cavity hyperechoic mass, treated with curettage. Two weeks later the curettage, patient complained still vaginal bleeding. On the transvaginal ultrasound, the uterine cavity was occupied again by a hyperechoic mass. She underwent to hysteroscopic resection and histological diagnosis was compatible with placenta accreta residual. In the follow up she had not complications. Early diagnosis, prompt evaluation of bleeding is important for timely treatment and for preventing immediate complications and demolitive approach. A careful follow up is necessary to prevent late consequences. The purpose of this study is to report our experience in timely diagnosis and conservative management.

Keywords: Retained products of conception, placenta accreta, postpartum bleeding

Introduction

The term retained products of conception (RPOC) refers to intrauterine tissue that develops after conception and persists after medical and surgical pregnancy termination, miscarriage, and vaginal or cesarean delivery. This intrauterine tissue is often of placental origin [1]. RPOC is one of the most common causes of postpartum bleeding, but the clinical presentation can be also characterized by pain or fever. The incidence of RPOC seems to related on the gestational age of the pregnancy, most frequently after second-trimester delivery or termination of pregnancy. RPOC are estimated approximately 1% of term pregnancies [2]. The main risk factors are failure to progress during delivery, placenta accreta, and instrument delivery. The diagnosis presents a major clinical challenge. The association between clinical features and ultrasonographic characteristic is essential for diagnosis; however color Doppler US increases the positive predictive value for

the diagnosis of RPOC. Serum beta human chorionic gonadotropin (B-hCG) levels also may be checked, but they may not be helpful because they can be elevated in the postpartum period [2]. The histological diagnosis is based on the presence of chorionic villi, which indicates persistent placental or trophoblastic tissue, can invade uterine endometrium [1].

Case report

We report a case of a 37 years old woman, G1P1, referred to our gynecologic department with irregular vaginal bleeding since her cesarean section occurred 3 months before. In the last few days she had also pelvic pain. On her medical history, she had a cesarean section and no postpartum complications. During her cesarean section, at macroscopic examination, placenta appeared to be accrete, with scleroialina degeneration, so the histological examination was done, with the result of term placenta, without cellular atypie.

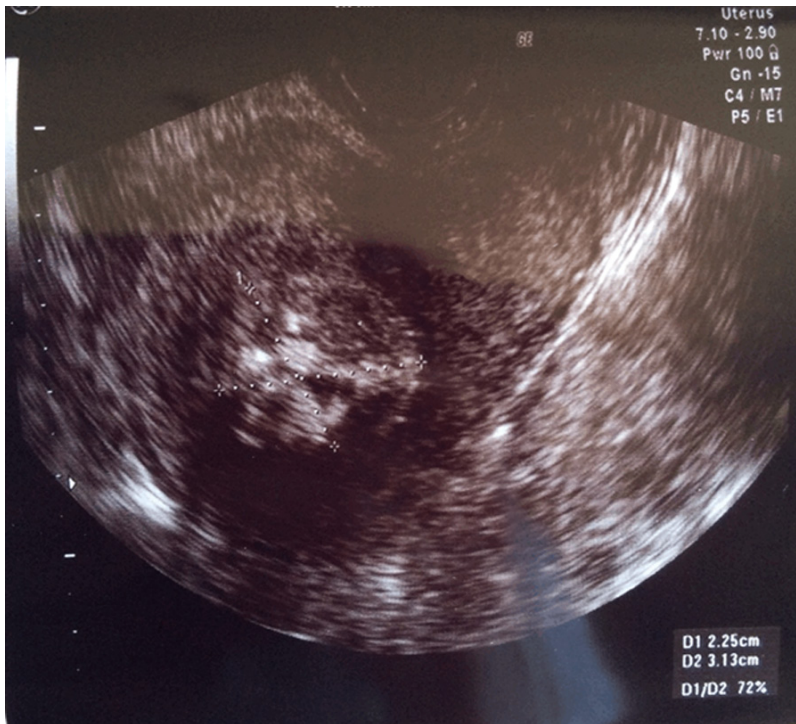


Figure 1. Hyperechoic mass (22×31 mm in diameter) in the uterine cavity, three months after cesarean delivery.

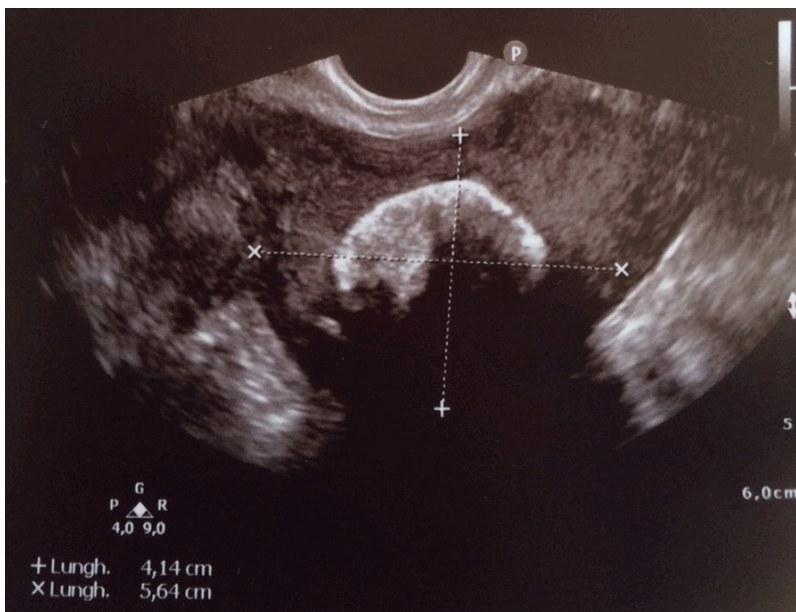


Figure 2. Two weeks later the curettage, the uterine cavity was occupied again by a hyperechoic mass (32×30 mm).

During our observation serum levels of beta-human chorionic gonadotrophin (β -hCG) were always negative. Ultrasonography revealed in the uterine cavity hyperechoic mass, measur-

ing 22×31 mm in diameter (**Figure 1**). Both annexes were normal. She underwent dilatation and curettage and so much material was removed (**FIG**). The histopathological description was of shadows tissue compatible with placental villi in degeneration scleroialina. There were also some trophoblastic cells still vital. Two weeks later the curettage, the patient complained still vaginal bleeding. On the transvaginal ultrasound, the uterine cavity was occupied again by a hyperechoic mass (32×30 mm) (**Figure 2**). Sonohysterography demonstrated that it was strictly adherent to uterine walls and color Doppler US excluded a vascularization of the neoformation. Serum level of β -hCG was still negative. We programmed a new access to our gynecology department, for hysteroscopic resection and at the end of the surgical procedure the cavity appeared to be empty. The removed material was sent to histological examination and the first histological report was confirmed. In the follow up she hasn't got complications.

Discussion and conclusion

After medical and surgical pregnancy termination, vaginal or cesarean delivery there may be partial or complete retention of parts of the placenta or other decidual tissues wi-

thin the uterus. This condition is defined RPOC. It is one of the most common causes of both primary and secondary post partum hemorrhage [1]. One of the most important factor risk

for RPOC is placenta accreta, defined as “the abnormal adherence, either in whole or in part, of the afterbirth to the underlying uterine wall” [3]. Placenta accreta is a severe pregnancy complication. It is a major cause of obstetric hemorrhage, a situation that remains the most significant cause of maternal morbidity and mortality worldwide [4]. It is caused by a defect in decidua basalis resulting in an abnormally invasive placental implantation [5]. This condition is often related to previous uterine scars (cesarean sections and prior uterine curettage), and other risk factors associated with placenta accreta are multiparity, placenta previa, prior intrauterine infections, elevated maternal serum a-fetoprotein, and maternal age >35 years [6]. The incidence of placenta accreta approximates about 1 in 1000 deliveries and, has increased 10-fold in the last 50 years, primarily because of the rise in cesarean section rates [5]. Patients with RPOC usually presented abdominal pain, bleeding, fever: these clinical symptoms aren't specific, but the early diagnosis is critical for directing clinical management of bleeding and for preventing associated consequences [1]. Ultrasonography (US) is useful in the evaluation of RPOC and the diagnosis is supposed on the sonographic appearance of intrauterine echogenic material. Although transvaginal sonographic enhances evaluation for RPOC, the diagnosis is sometimes difficult because necrotic decidua and blood clots may be very difficult to differentiate from RPOC [7]. For this reason combined gray scale and color Doppler US can improve the valuation of suspected RPOC, allows realtime assessment of the uterine structures and blood flow, whereas magnetic resonance (MR) imaging can be helpful imaging modality in complicated cases [1]. The most sensitive finding of RPOC at gray-scale US is a thickened endometrial echo complex (EEC). The exact definition of “thickened” varies in the literature, ranging from 8 to 13 mm. The degree of vascularity in a thickened EEC or endometrial mass can help improve diagnostic assessment of RPOC. To better describe the typical color Doppler US findings of RPOC, the degree of vascularity of the endometrial component can be compared with the myometrial vascularity in the same image section and graded [7]. Transvaginal sonohysterography has also been shown to be an useful method. Combining these techniques, color Doppler sonography and sonohysterography,

may increase the accuracy of the diagnosis of RPOC over that from conventional sonography [8]. The majority of women with placenta accreta have no symptoms during pregnancy [9]. However Prenatal diagnosis of MAP and its variants can help reduce maternal/fetal morbidity and mortality by allowing us to choose the best time and place of birth. Cali et al have to identify ultrasonographic criteria for morbidly adherent placenta (MAP): loss/irregularity of the echolucent area between uterus and placenta, termed ‘clear space’; thinning or interruption of the hyperechoic interface between uterine serosa and bladder wall, termed ‘bladder line’; presence of turbulent placental lacunae [13,14] with high-velocity flow (>15 cm/s). Transabdominal 3D power Doppler was used to map the vascularization of the intraplacental and uterine serosa-bladder interface. In particular, the sagittal sections were used to assess the depth of placental tissue neovascularization and whether this was limited to the basal layer or if it affected the entire remaining placental parenchyma.

Coronal sections were used to assess the extent of the serosa-bladder wall interface neovascularization and to determine if the process involved the whole area or only a portion [10].

In our case Doppler US excluded vascularization of the neof ormation and sonohysterography demonstrated that the mass was strictly adherent to uterine walls. Once RPOC is diagnosed on the basis of clinical, laboratory, and US findings, several treatment are available, including expectant management, use of uterotonic medications such as prostaglandin E1 analogs, and surgical interventions such as dilation and curettage and hysteroscopic removal. Actually there aren't clear guidelines for optimal treatment of retained products of conception with high risks of the complications in these women [11]. Short term consequences of RPOC include bleeding and infections, while long term consequences include formation of intrauterine adhesions, also defined Asherman's syndrome. Historically the curettage with a large curette was the standard of care. Therefore a more conservative management included awaiting spontaneous expulsion of the placental tissue with the aid of prostaglandins; but a new approach is reported by Goldenberg et al that introduced the use of hysteroscopy [12]. The goal of this procedure is decrease thermal damage to the endometrium,

preserve the integrity of the uterine cavity minimizing rates of intrauterine adhesions and fertility problems. Additional advantages may be complete removal of RPOC without the need for a second procedure, and identification and treatment of uterine cavity anomalies, which are sometime the underlying cause of RPOC [12]. However this technique may be problematic in the immediate postpartum period due to heavy vaginal bleeding and it has been suggested that hysteroscopic selective resection of the retained products of conception should be considered in patients with secondary (delayed) postpartum bleeding [1]. Although hysteroscopy is theoretically less traumatic to the endometrium than curettage, the recent available literature points out that lack scientific evidence to prove that the hysteroscopic technique is superior to the traditional suction and curettage in terms of intrauterine adhesions rates and future pregnancies [13]. Retained placental tissue following birth, and retained products of conception following curettage, are not uncommon consequences. In most cases, secondary evacuation of the retained tissue ends without any sequelae. However, in a minority of cases the formation of intrauterine adhesions may significantly affect future reproductive outcomes due to infertility or miscarriages. Although histopathological examination of tissue is required to ascertain diagnosis, our experience shows the importance of an accurate diagnosis grounded on clinical presentation in association with imaging features [1]. Our experience shows that the first step in all bleeding cases was to evaluate the uterine cavity by ultrasound, but sometimes it was difficult to distinguish between placental tissue and blood clots, however ultrasonography combined gray scale - color Doppler and sonohysterography is the best predictor in women with a suspicion of RPOC. This approach represents a useful diagnostic tool for prompt evaluation for timely treatment and for preserve fertility of these women. Further studies may be necessary to confirm the benefit of hysteroscopy over traditional suction and curettage for treatment of RPOC [14]. So a careful investigation, a management with efficient planning and an accurate follow up are required in patients with retained products of conception to lessen morbidity and to preserve their obstetric outcome. In our study, we have presented a conservative approach for placenta

accreta case. Planned cesarean hysterectomy at the time of cesarean is the standard recommended treatment in the United States, but over the last years interest in conservative management has most resurged [15]. Conservative management should be the preferred approach for reduce the morbidity of peripartum hysterectomy and especially for save fertility in young women. Our surgical procedure seems to be useful in the conservative treatment of placenta accreta. The patient presented any septic complication or secondary vaginal bleeding. However subsequent pregnancies after conservative treatment for placenta accreta were mostly successful, a history of placenta accreta is an independent risk factor for recurrent placenta accrete and postpartum hemorrhage [16]. This should be taken into account in order to ensure future safety pregnancies and deliveries to patients. In fact in these patients the site and time of delivery, as well as the surgical approach, can be planned ahead and blood loss minimized.

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Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Disclosure of conflict of interest

None.

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