



A Case of a Placenta Percreta Presenting with Severe Vaginal Bleeding Following Early Second Trimester Pregnancy Termination

CASE REPORT

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ABSTRACT

A 14-week pregnant woman was admitted to the hospital for pregnancy termination because of early rupture of membranes. Dilatation and curettage were performed because the placenta did not separate spontaneously after fetus evacuation. The placenta could not be extracted and severe vaginal bleeding occurred. The patient's condition deteriorated. Placenta percreta was detected intraoperatively. Emergency hysterectomy was performed. Because of the high risk of maternal morbidity and mortality, it is important to consider placenta percreta in the presence of prolonged first and second trimester pregnancy termination, especially in those patients with a history of uterine surgery.

Keywords: Placenta, placenta percreta, postpartum hemorrhage

INTRODUCTION

Placental localization anomalies occur as a result of placenta's invasion to the uterus in varying degrees, secondary to impaired cellular and immunological interaction between the placenta and decidua (1). In clinical manifestation, they usually appear as bleeding in the third trimester and after delivery or as late separation of placenta and are among the most important causes of maternal morbidity and mortality (2).

Here we present a case of hemorrhage that occurred because of placenta percreta after early second trimester pregnancy termination, threatening the mother's life seriously. We aim to provide suggestions about the attitudes that should be adopted in similar situations by examining steps of the clinical process.

CASE REPORT

A 31-year-old 14-week pregnant woman with an obstetric history of G3 P1, abortus 1, and delivery by cesarean section presented with the complaint of fluid gushing from her vagina. In her ultrasonography (US), a single alive fetus, which was 14-month according to CRL, was monitored. The placenta was monitored on the anterior wall of the uterus and no measurable amniotic fluid was observed. Fluid from the external cervical os was revealed by clinical evaluation and the pH was found to be 9. The patient was hospitalized for pregnancy termination because of membrane rupture. She was informed about all interventions that would be performed and written informed consent form was obtained from her. For pregnancy termination, vaginal prostaglandin E2 tablets were given every 4 h and the pregnancy was terminated at the end of the 7th day. Because the placental tissue was not separated after termination, placental extraction and Mumm curettage procedures were performed under general anesthesia. During the process, the placenta was not separated again and severe vaginal bleeding was observed. Bed-side emergency US revealed a mass in the placenta echo expanding the lower uterine segment globally. The patient had a pulse rate of 120, arterial tension of 80/50 mmHg, hemoglobin of 4.6 mg/dL, and filiform peripheral pulse in a short time and underwent emergent operation because of placenta accreta and shock. In the intraoperative evaluation, the uterus was observed as 15-week sized and the lower segment was expanded by the placenta. The isthmus was adjacent to the bladder and the peritoneal surface was partly invaded by placental vessels (Figure 1). The patient underwent hysterectomy because she had active bleeding and was hemodynamically unstable. In the perioperative period, she was given 6 units of erythrocyte suspension and 2 units of fresh frozen plasma. After hysterectomy, the patient was discharged on the third day with good medical condition. A histopathological examination confirmed the clinical diagnosis of placenta increta/percreta.

DISCUSSION

Placenta percreta is the rarest placenta invasion anomalies and constitutes 5-7% of all invasion anomalies (3). The most important risk factor for placenta percreta, which is characterized by total absence of decidual basalis and

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Figure 1. Intraoperative image of the uterus. The lower segment expanded by the placenta and partly invasive

invasion of placenta up to the out of the uterus serosa, is previous uterine surgery, cesarean section, and curettage.

Classically, the diagnosis of placenta accreta was established by evaluating the clinical pictures of third trimester bleeding or postpartum placenta retention. However, with widespread clinical use of routine obstetric US, it began to be diagnosed in the second trimester mostly. Moreover, some cases of placenta invasion anomalies have recently been reported as being diagnosed in the first and second trimesters (4, 5). In literature, the first trimester placenta accreta cases have mostly been reported to occur after dilatation curettage procedures. However, Horneman et al. (6) reported a case of uterine rupture associated with placenta accreta developing in the second trimester. The common factor in first and early second trimester placenta previa cases is the history of previous cesarean section and/or uterine curettage. Furthermore, Shojai et al. (7) reported a case of placenta previa characterized by prolonged termination process, similar to our case. In our study, a history of previous cesarean and curettage procedures, the placenta's localization on the anterior wall, and the prolonged termination were risk factors for placenta accreta. However, early gestational week, difficult ultrasonographic evaluation because of the presence of anhydramnios, and the absence of bleeding can be considered as factors leading to delayed diagnosis.

The presence of placenta accreta should be evaluated with early US, particularly in patients with risk factors. In transabdominal and transvaginal US, myometrial defect seen especially in the region of uterine scar and the protrusion by the placenta toward this region can be early findings of placenta accreta (8). Ben Nagi et al. (9) defended that cesarean scar pregnancy in the first trimester could turn into placenta accreta and reported the clinical and ultrasonographic course of this conversion in a case.

Early placenta previa can cause spontaneous bleeding or severe bleeding after termination and threaten the mother's life. Therefore, in cases included in the risk group, the diagnosis should be confirmed and immediately treated (10). The most effective treatment method is total or subtotal hysterectomy. In hemodynamically stable cases, selective catheterization and chemotherapy, angiographic embolization, and tamponade techniques can be used as alternative methods (11, 12).

CONCLUSION

Clinicians performing late separation of placenta after pregnancy termination, especially in patients with risk factors, should keep in mind placental invasion anomalies because it causes serious maternal morbidity and mortality and it is very rare. Placental localization and invasion should be evaluated by US before uterine dilatation or instrumentation.

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REFERENCES

1. Silver RM, Landon MB, Rouse DJ, Leveno KJ, Spong CY, Thom EA et al. Maternal morbidity associated with multiple repeated cesarean deliveries. *Obstet Gynecol* 2006; 107(6): 1226-32. [\[CrossRef\]](#)
2. Mungan MT, Kutlar I, Cingi A. Sezaryen Histerektomiler. *Turkiye Klinikleri J Gynecol Obst* 1992; 2(4): 254-6.
3. Hudon L, Belfort MA, Broome DR. Diagnosis and management of placenta percreta: a review. *Obstet Gynecol Surv* 1998; 53(8): 509-17. [\[CrossRef\]](#)
4. Gherman RB, McBrayer S, Tichenor J, Wing DA. Placenta increta complicating first-trimester D and C. *Obstet Gynecol* 1999; 93(5 Pt 2): 845. [\[CrossRef\]](#)
5. Hopker M, Fleckenstein G, Heyl W, Settler B, Emons GI. Placenta percreta in week 10 of pregnancy with consecutive hysterectomy. *Hum Reproduction* 2002; 17(3): 817. [\[CrossRef\]](#)
6. Hornemann A, Bohlmann MK, Diedrich K, Kavallaris A, Kehl S, Kelling K, et al. Spontaneous uterine rupture at the 21st week of gestation caused by placenta percreta. *Arch Gynecol Obstet* 2011; 284(4): 875-8. [\[CrossRef\]](#)
7. Shojai R, Roblin P, Boubli L. Failed early medical abortion: beware of the uterine scar! Case report. *Eur J Contracept Reprod Health Care* 2012; 17(3): 237-9. [\[CrossRef\]](#)
8. Wong HS, Zuccollo J, Tait J, Pringle KC. Placenta accreta in the first trimester of pregnancy: sonographic findings. *J Clin Ultrasound* 2009; 37(2): 100-3. [\[CrossRef\]](#)
9. Ben Nagi J, Ofli-Yebovi D, Marsh M, Jurkovic D. First-trimester cesarean scar pregnancy evolving into placenta previa/accreta at term. *J Ultrasound Med* 2005; 24(11): 1569-73.
10. Eyi EGY, Danışman N, Çağlar T. Peripartum Obstetric Emergencies. *Turkiye Klinikleri J Surg Med Sci* 2006; 2(24): 47-54.
11. Soleymani Majd H, Srikantha M, Majumdar S, B-Lynch C, Choji K, Canthaboo M, et al. Successful use of uterine artery embolisation to treat placenta increta in the first trimester. *Arch Gynecol Obstet* 2009; 279(5): 713-5. [\[CrossRef\]](#)
12. Takeda A, Koyama K, Imoto S, Mori M, Nakano T, Nakamura H. Conservative management of placenta increta after first trimester abortion by transcatheter arterial chemoembolization: a case report and review of the literature. *Arch Gynecol Obstet* 2010; 281(3): 381-6. [\[CrossRef\]](#)