

Spontaneous Uterine Rupture at The 13th Weeks of Gestation Caused by Placenta Percreata: A Case Report

13 Haftalık Gebelikte Plasenta Percreata Bağlı Spontan Uterin Rüptürü: Olgu Sunumu

© Erdal Şeker¹, © Evindar Elçi², © Nilgün Söğütçü³

¹Ankara University, Department of Obstetrics and Gynecology, Perinatology Unit, Ankara, Turkey

²Dicle University, Department of Obstetrics and Gynecology, Diyarbakır, Turkey

³University of Health Sciences Turkey Gazi Yaşargil Training and Research Hospital, Clinic of Pathology, Diyarbakır, Turkey

Abstract

To describe the management of a ruptured uterus caused by placenta percreta at the 13th week of gestation. Spontaneous rupture of the non-laboring uterus is a relatively rare occurrence in obstetrics. It is associated with massive intra-peritoneal bleeding which can be mortal if not recognized.

A 33-year-old patient presented with severe abdominal pain at the 13th week of gestation at the emergency service of Health Sciences University Gazi Yaşargil Training and Research Hospital, Diyarbakır, Turkey. The patient's ultrasonography revealed free fluid in the abdomen, placenta previa and anomaly in the fetus.

Magnetic resonance imaging (MRI) was performed for differential diagnosis of free fluid. MRI showed hematoma between the bladder and uterus. After the signs of hypovolemic shock developed, we performed an immediate laparotomy and a ruptured uterus was detected. The fetus was removed and a hysterectomy was performed. Pathology results showed placenta percreta. After a few days in hospital and transfusion of 5 liters of blood, the patient was discharged in a healthy condition.

In a pregnant woman with severe abdominal pain, even in the 13th week of gestation, a placenta accreta has to be considered as a differential diagnosis. If there is no benefit of the other treatments, hysterectomy is a life-saving intervention.

Key Words: Placenta Percreta, Uterine Rupture, Pregnancy

Özet

On üçüncü gebelik haftasında plasenta perkreatanın neden olduğu rüptüre uterusun tedavisini tartıştık. Spontan uterus rüptürü, obstetrikte nispeten nadir bir durumdur. Tanınmadığı takdirde ölümcül olabilen masif intra-peritoneal kanama ile ilişkilidir.

Otuz üç yaşında bir hasta, 13. haftada, Sağlık Bilimleri Üniversitesi Gazi Yaşargil Eğitim ve Araştırma Hastanesi Acil Servisi'ne şiddetli karın ağrısı ile başvurdu. Hastanın ultrasonografisinde karında serbest sıvı, plasenta previa ve fetüste anomali saptandı.

Serbest sıvının ayırıcı tanısı için manyetik rezonans görüntüleme (MRG) yapıldı. MRG'de mesane ve uterus arasında hematoma görüldü.

Hipovolemik şok belirtileri geliştikten sonra hemen laparotomi yapıldı ve rüptüre uterus saptandı. Fetus çıkarıldı ve histerektomi yapıldı. Patoloji sonuçları plasenta perkreataya olduğunu gösterdi. Hastanede birkaç gün kaldıktan ve 5 litre kan transfüzyonundan sonra hasta sağlıklı bir şekilde taburcu edildi.

On üçüncü gebelik haftasında bile şiddetli karın ağrısı olan gebe bir kadında plasenta akreta ayırıcı tanı olarak düşünülmelidir. Diğer tedavilerin bir faydası yoksa, histerektomi hayat kurtarıcı bir müdahaledir.

Anahtar Kelimeler: Plasenta Percreata, Uterin Rüptürü, Gebelik

Address for Correspondence/Yazışma Adresi: Spc. Dr. Erdal Şeker, MD,
Ankara University, Department of Obstetrics and Gynecology, Perinatology Unit, Ankara, Turkey
Phone: +90 312 595 64 05 E-mail: erdalşeker84@gmail.com ORCID: orcid.org/0000-0001-9818-0414
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Introduction

Spontaneous rupture of the non-laboring uterus is a quite rare situation (1). In the literature, There are cases that uterine rupture has been reported in patients without a history of uterine surgery (2-4).

Uterin rupture may occur in the first period of placentation due to myometrial invasion. We think that fetal anomaly may also be the cause of uterine rupture. And we think that as cesarean number increases, it may lead to uterine rupture earlier.

Case Report

Thirty-three years old, para four patient referred to our hospital at 13th weeks of gestation. She had a history of cesarean section four times. She was using low molecular weight heparin (LMWH) 4000 U as subcutaneous, per day for thrombophilia treatment. She had a for Factor V Leiden heterozygous genetic anomaly. It has been learned that she admitted to the emergency service in June 2018 with a complaint of lower abdominal pain. She described her vital findings was stable, and the pain was generalized when she went to emergency service.

The patient consulted to radiology for an ultrasound. It has been showed in the ultrasonography, free fluid in the Morrison area, a single fetus at 13th weeks of gestation with occipital encephalocele (Figures 1 and 2). The placenta was at the left lateral side and cervical ostium was covered completely by the placenta.

Magnetic resonance imaging (MRI) performed to investigate the cause of intraabdominal bleeding. MRI showed mild high-density ascites suggesting intraperitoneal hemorrhage and placenta previa (Figure 3). We hospitalized the patient. The general condition of the patient deteriorated after one hour.

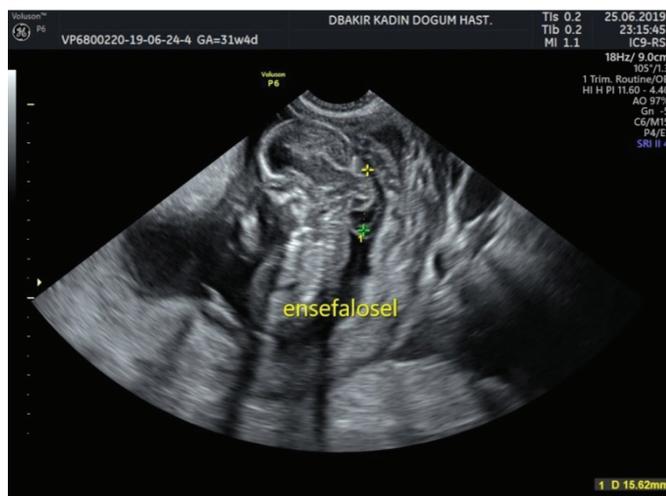


Figure 1: Sagittal view

Her blood pressure decreased to 80/52 mmHg, and her heart rate was 104/min. With these reasons, we decided to perform an emergency laparotomy. With general anesthesia, phanesteel incision was performed. There was about 2 liters of hematoma intraoperatively. We observed active bleeding at the previous incision side, and the placenta was partially visible outside



Figure 2: Image of encephalocele in the occipital region with USG
USG: Ultrasonography

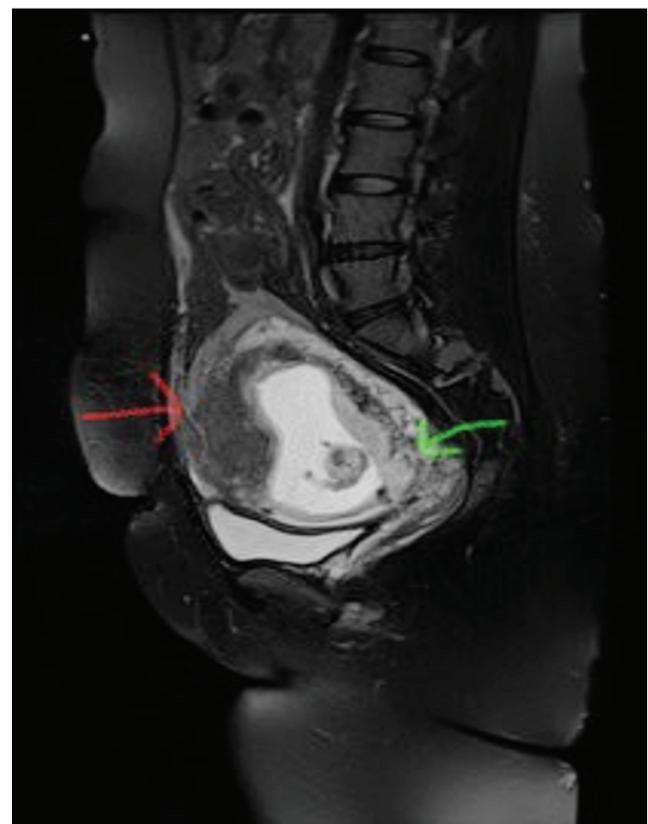


Figure 3: Red arrow: indicates cesarean scar line and bleeding area. Green arrow: indicates the area of placenta previa totalis

the uterus. Fetus and fetal materials were taken out. Bleeding control could not be achieved. There were some invasion areas with bleeding in the posterior cervical region. We tried to stop bleeding by suturing. We ligated uterine arteries and ovary proprium ligaments due to the bleeding did not stop. However none of them worked. Because of this, we performed the cesarean hysterectomy. The recorded blood loss was about 2.5 liters. We transferred 5U erythrocyte suspension. We placed a drain on the abdomen. The patient stabilized at the 6th postoperative hour and discharged without any problem. Hemoglobin values of the patient reported before surgery, during surgery and after transfusion as 7.2-5.6-9.3 g/dL. We examined the fetus and



Figure 4: Arnold Chiari Type 3

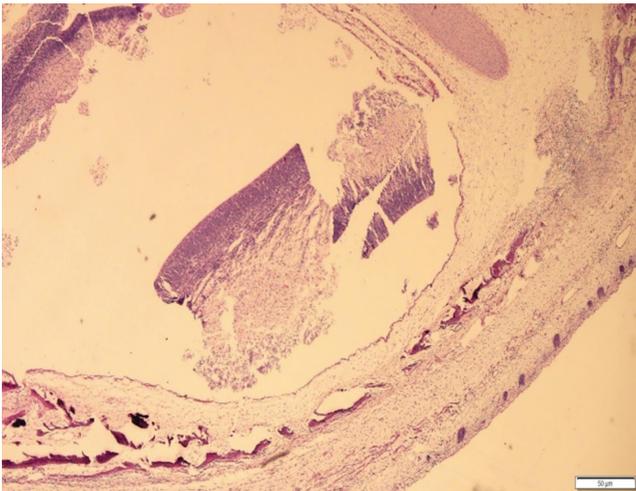


Figure 5: Fetal meningoencephalocele (H&E: Hematoxylin and eosinx40). Meningoencephalocele containing neural tissue, fibrous tissue and choroid plexus on the left lower side and surrounded by thinner skin

confirmed that it had occipital encephalocele, type 3 Arnold Chiari (Figure 4). In the pathological evaluation of fetus occipital encephalocele was (Figure 5).

Discussion

The most common cause of uterine rupture is previous cesarean surgeries. Uterine rupture due to placenta accreta and percreta is mostly detected in the first and second trimesters (5). The main pathology in placenta accreta cases is the deficiency of the Nitabuch layer in the uterine muscle tissue. Although our patient was not in labor, uterine rupture developed in the first trimester due to many risk factors (previous scar, placenta previa, fetal anomaly).

The most common cause of uterine rupture is dilatation curettage due to missed abortion (6). A case of uterine rupture diagnosed with ultrasound in early pregnancy has been reported. They also reported that the uterus was repaired without pregnancy termination and pregnancy continued until 32 weeks (7). In our case, we preferred to terminate pregnancy due to incomplete rupture and fetal anomaly.

The patient with uterine rupture who described by Medel et al. (8) was at the 18th week of gestation after fertility treatment. The authors reported that this patient died due to coagulopathy and hypovolemic shock. We think that our patient has improved because we provide early intervention and blood replacement.

In the literature, a small number of cases of uterine rupture reported in the early stages of pregnancy are present (9,10). Our patient had been cesarean four times before.

Contrary to the literature, these studies have shown that even at the first stage of placental invasion, placenta percreta and uterine rupture can be observed. We believe that fetal anomaly may be associated with placenta previa/percreta and uterine rupture as in our patient.

In conclusion, Considering our case, uterine rupture should be kept in mind in the differential diagnosis in case of acute abdomen in early weeks of pregnancy.

Ethics

Informed Consent: Informed consent was obtained from the patient orally.

Peer-review: Externally and internally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: E.Ş., N.S., Concept: E.Ş., E.E., Design: E.Ş., E.E., Data Collection or Processing: E.Ş., N.S., Analysis or Interpretation: E.Ş., N.S., Literature Search: E.Ş., E.E., Writing: E.Ş., E.E.,

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