

# An Unusual Case of Placenta Percreta

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Placenta percreta is a rare and serious complication of pregnancy. A 35 years old pregnant woman with severe preeclampsia at 36 gestational weeks delivered a live small for gestational age (SGA) fetus by cesarean section. During the operation, as the fetus had been delivered, the placenta was observed to be perforating the uterus at fundal region attaching to the omentum. This is a rare case of an intrauterine pregnancy with an extrauterine blood supply reaching almost term. Neither bleeding from placenta nor uterine rupture developed; and the infant was SGA and otherwise healthy.

**Key Words:** Placenta percreta, Extrauterine placenta

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## Background

It is very unusual to discover the placenta of an intrauterine pregnancy penetrating the myometrium and attaching to the omentum to receive its major blood supply and ending with an almost term pregnancy.

## Case Report

A 35 years old Caucasian G2, P1, A0, C0 pregnant women at 36 gestational weeks (according to the data of the first trimester ultrasonographic examination) presented with the complaint of headache and abdominal pain. The obstetrical history revealed that she had a previous vaginal delivery ten years ago which ended up with curettage due to placental retention.

The blood pressure was noted as 150/100 mmHg, the heart rate as 92 bpm and body temperature as 36.8 °C (98.2 F) on admission. On physical examination there was mild epigastric tenderness without any defense or rebound; and she had mild pretibial edema. The cervical digital examination revealed that the cervix was 2 cm dilated with minimal effacement. On transabdominal ultrasonographic examination, fetal cardiac activity was observed, fetal measurements were as follows: biparietal diameter: 91 mm, head circumference: 319 mm, ab-

dominal circumference: 279, femur length: 63 mm, estimated fetal weight: 2100 g (<10<sup>th</sup> percentile for 36 GW). Amniotic fluid volume was normal and the placenta was located at fundus-right sidewall and the fetal presenting part was vertex.

On urinary analysis urinary albumin was (+++); On complete blood count Hb was 13.3 mg/dl, Hct: 38.2%, WBC: 10400 mm<sup>3</sup>/ml, Platelets: 246000. On blood biochemistry BUN was 26 mg/dl, uric acid: 5.7 mg/dl, creatine: 0.84 mg/dl, total protein: 6.8 g/dl, albumin: 2,3 g/dl, SGOT:27 U/L, SGPT:20 U/L, direct bilirubin: 0.19 mg/dl, indirect bilirubin: 0.3 mg/dl, Na: 145 mEq/L, K: 4.6 mEq/L. Coagulation tests were normal.

The patient was hospitalized with the diagnosis of “moderate preeclampsia”. The nonstress test was non-reactive and no uterine contraction was observed.

The ophthalmologic examination was normal.

Intravenous MgSO<sub>4</sub> 18 mg/dl treatment was initiated at an infusion rate of 99 ml/hr to prevent a possible seizure.

The NST was repeated 2 hours later. Due to the non-reassuring fetal heart rate patterns, immediate delivery by cesarean section was decided.

During the cesarean section, the exploration revealed a ‘liver like’ mass, approximately 10x10 cm in size, located adjacent to the uterine isthmus on the right anterior aspect which resembled hepatoptosis or accessory liver lobe. The uterus was incised by Munro Kerr incision and a live, 1750 g of weight, 42 cm of height and 30 cm of head circumference female fetus with the 1st minute APGAR score 8 and 5th minute APGAR score 9 was delivered. The umbilical cord was followed in endometrial cavity to reach placenta but the placental tissue was discovered to penetrate the myometrium on the

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right cornual region and attached to the omentum (Figure 1 & 2). The 'liver like mass' was noticed to be clotted blood. There was no adhesion on bladder or intestines. Besides the blood clot mentioned, there was no sign of bleeding in the abdominal cavity. Omentum was dissected from the attached placental tissue. Uterus was incised to remove the placental tissue and the placental tissue was dissected from the uterus. The boundaries of the defect on the fundus after the dissection of placenta still contained necrotic placental tissue and it was not technically feasible to repair the defect with proper hemostasis so a postpartum hysterectomy was performed.



Figure 1: The picture of the operation field showing the placental tissue

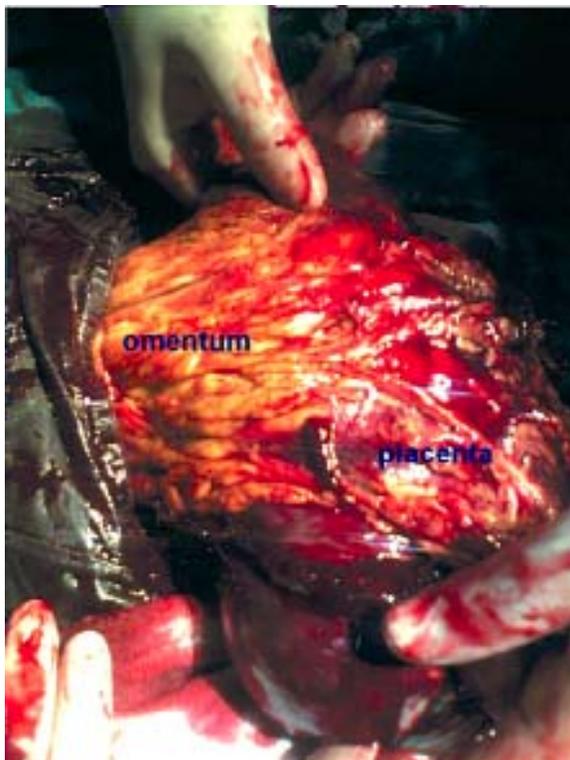


Figure 2: The placental tissue penetrating the myometrium and attaching to the omentum

No postoperative complication was encountered and the patient was discharged on the 4<sup>th</sup> postoperative day. Newborn intensive care unit was not required and the baby was given to the mother.

In pathological examination placental tissues implanted to myometrium, wide placental infarctions, chorangioma, an area of adhesion to the omentum on the outer surface, decidual reaction in the omentum, chronic inflammatory infiltration and regular membrane structure were encountered.

## Discussion

Placenta percreta is the rarest condition with the prevalence of 5-7% of all abnormal placentations.<sup>1</sup> It's a potentially life-threatening condition since it may cause perforation of the uterus or massive bleeding from the placenta possibly leading to the intrauterine fetal demise as well as postpartum uterine bleeding leading to hysterectomy. In case of placenta percreta, maternal and fetal mortality rates are reported between 6-7% and 9-19%, respectively.<sup>1</sup>

Placenta percreta is very rare in an unscarred uterus.<sup>2</sup> The obstetrical history of this case revealed that she had a previous vaginal delivery which ended up with curettage due to retention of the placenta. During this curettage, the myometrium might have been scarred resulting in abnormal placentation again.

The diagnosis of placenta percreta is difficult. Ultrasound enhanced with Doppler is the first-choice diagnostic method because of its accessibility and high sensitivity. Placental MRI is an accurate method of topographic stratification that makes it possible to define anatomy, to plan the surgical approach and to consider other therapeutic possibilities.<sup>3</sup> High maternal morbidity of placenta percreta can be reduced with antenatal diagnosis and elective delivery. In this case, a routine ultrasonographic examination was performed on admission, and the placenta was observed to be located in fundal region. It might have been diagnosed before, if the patient was followed antenatally.

The fetus was SGA in this case. The placental perfusion was possibly inadequate to nourish the fetus; although the blood supply from the omentum should not be underestimated since the fetus had reached the 36th gestational week. Besides, the woman had preeclampsia. Ekele et al.<sup>4</sup> reported a pregnant woman with eclampsia and abdominal pregnancy. It's hard to distinguish whether the preeclampsia itself caused the fetus to be SGA or insertion abnormality caused both preeclampsia and SGA.

In placenta percreta, uterine perforation and invasion into adjacent organs makes life threatening hemorrhage inevitable. Fortunately, there was no such complication in this case. The

uterine contractions had not started yet, possibly saving lives of both mother and the fetus.

The two treatment options in placenta percreta are surgical management with hysterectomy or conservative therapy.<sup>5</sup> The mainstay of surgical management is postpartum hysterectomy. The conservative management can be spared for only uncomplicated placenta percreta cases and consists of leaving the placenta in situ, uterine curettage with packing, local excision of placenta and repair of the remaining defect, uterine artery ligation and combinations of the above. However, conservative management is associated with up to four times higher mortality rates compared to immediate hysterectomy.<sup>6,7</sup> In this case, local excision was attempted but resulted with a postpartum hysterectomy.

### Sıradışı Bir Plasenta Perkreta Olgusu

Plasenta perkreta gebeliğin nadir ve ciddi bir komplikasyonudur. Otuz beş yaşında, 36. gebelik haftasında ağır preeklampsi görülen bir gebe sezaryenle gebelik haftasına göre doğum ağırlığı düşük (SGA) olan canlı bir bebek doğurdu. Ameliyat sırasında fetusun doğumu gerçekleştikten sonra plasentanın uterusu perforasyonu ve fundus bölgesinde omentuma tutunmuş olduğu görüldü. Bu olgu sunumunda, intrauterin bir gebelikte plasentanın uterus dışında bir kaynaktan kanlandığı ve gebeliğin neredeyse terme ulaştığı bir olgu tartışılmaktadır. Ne plasentadan kanama, ne de uterin rüptür gelişmemiş ve fetus SGA olması dışında sağlıklı olarak doğurtulmuştur.

**Anahtar Kelimeler:** Plasenta perkreta, Ekstrauterin plasenta

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