ZKTB

CASE REPORT

Surrounding Resection Technique for Placenta Percreta: A Fertility Preserving Approach

Plasenta Perkretada Çevresel Rezeksiyon Tekniği: Bir Fertilite Koruyucu Yaklaşım

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ABSTRACT

Introduction: *Placenta percreta is a life-threatening obstetric emergency characterized by the abnormal invasion of chorionic villi into the uterine wall. Although various conservative treatment modalities have been described, hysterectomy is still a common option as life saving procedure.*

Case: *In this case, surrounding resection technique with hypogastric artery ligation is described as an option in selected cases who desire fertility.*

Conclusion: *In selected cases with focal placenta percreta surrounding resection technique can be used by an experienced surgical team.*

Keywords: *fertility preservation; obstetric surgical procedure; placenta percreta*

ÖZET

Giriş: *Plasenta perkreta koryonik villusların uterin duvara anormal invazyonu ile karakterize yaşamı tehdit eden bir obstetrik acildir. Her nekadar çeşitli konservatif tedavi seçenekleri tanımlanmış olsa da, histerektomi hala yaygın olarak hayat kurtarıcı bir seçenek olarak bulunmaktadır.*

Olgu: *Bu olguda, fertilite isteği olan seçilmiş olgularda hipogastrik arter bağlanmasıyla birlikte çevresel rezeksiyon tekniği tanımlanmıştır.*

Sonuç: *Fokal plasenta perkretalı seçilmiş olgularda deneyimli bir cerrahi ekibi tarafından çevresel rezeksiyon tekniği kullanılabilir.*

Anahtar Kelimeler: *fertilite koruma; obstetrik cerrahi prosedür; plasenta perkreta*

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INTRODUCTION

Placenta percreta is a life-threatening obstetric emergency characterized by the abnormal invasion of chorionic villi into the uterine wall. It is related to the previous uterine scars including caesarian sections, prior intrauterine infections and uterine curettage [1]. Although there are various treatment options; hysterectomy is the life saving procedure in most of the cases. Avoidance of severe hemorrhage can be achieved by performing classical caesarean section, leaving the adherent placenta in situ and either immediate hysterectomy or hysterectomy after 2-6 weeks of delivery. Late hysterectomy may be a good option as keeping the placenta in situ and may allow for the involution of the uterine vascularity, decrease the blood loss and facilitate the hysterectomy especially by avoiding bladder injuries [2, 3]. Embolisation of the uterine arteries and treatment with methotrexate have also been described. Preserving fertility by avoiding hysterectomy is very difficult in those patients with abnormal placentation [4-6]. Surrounding resection technique of the placenta accrete can be a treatment option in cases with placenta has partially or focally invaded the myometrium.

CASE REPORT

A 24 year old woman was referred to our hospital with the diagnosis of preeclampsia. She had a history of one previous caesarean delivery and she was at 34 weeks and 4th days of gestation at the time admission. Her ultrasound with color Doppler examination confirmed a fetus with intrauterine growth restriction, oligohydramnios and reversed diastolic flow at umbilical arteries with a partial placenta previa. She had a non reassuring fetal hearth rate pattern (non reactive and decreased variability). Cesarean delivery was planned for the patient. Sufficient cross-matched blood and blood products had been obtained. She had an intraoperative diagnosis of complete adherent placenta into the myometrium in 6 cm diameter at the anterior lower part of the uterine wall without

any infiltration into the urinary bladder (placenta percreta). Because of the patient's strong desire of fertility, conservative management was considered by the surgery team. Umbilical cord was clamped and cut very close to the placenta. Placenta was left undisturbed in the uterus and bilateral ligation of the hypogastric arteries were done to reduce blood lose, respectively.

Then the free segments of the placenta were resected with bipolar tissue sealer (Enseal Ethicon USA). Starting the dissection from lateral paravesical spaces, peritoneal fold over bladder was removed. Conservative management of partially attached placenta percreta was achieved with the surrounding resection technique by using the monopolar cautery and the bipolar vessel sealer (Figure 1, 2). Estimated blood loss during caesarean delivery was 1, 1 L. The patient did not require any post-operative blood transfusion or uterine artery embolisation. She was discharged home on the postoperative fourth day with oral antibiotics.

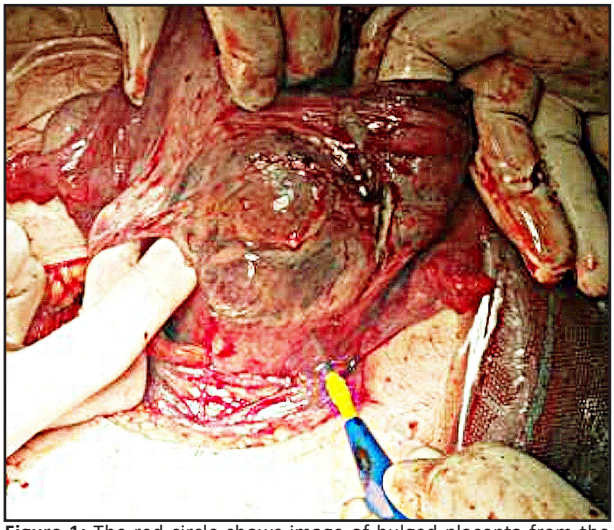

Figure 1: The red circle shows image of bulged placenta from the anterior lower part of the uterine wall.

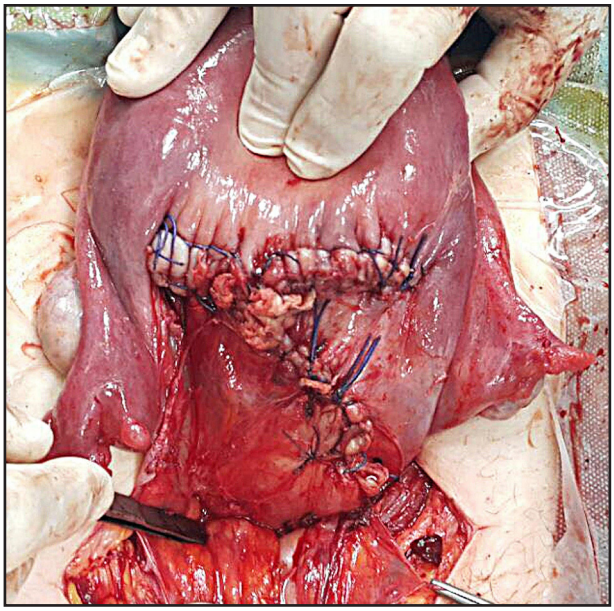

Figure 2: The uterus was repaired in two layers in vertical and transverse dissection axis in two layers.

She had a routine follow up appointment 1st and 4th weeks post-operatively. Endometrium, myometrium, vesicouterine fold and the urinary bladder was identified as normal by sonographic evaluation.

DISCUSSION

There has been an increase in incidence of placenta accreta in the past few years related to the increase in rates of caesarean birth. It is associated with significant maternal morbidity and mortality, with a reported worldwide incidence of 7%- 10% [2]. Conservative surgical measures such as myometrial compression sutures with uterine balloon tamponade have been described by various authors in limited cases. Expected management by intentional retention of placenta with or without embolisation of the uterine arteries was also described but this procedure has significant risk of sepsis or hysterectomy. Methotrexate has also been used by several authors since 1986 to help reduce placental mass and its vascularization in patients whom were managed by intentional retention of placenta [7]. But routine use of methotrexate should not be recommended because of the knowledge that placenta do not have enough rapidly dividing cells for the efficacy of the drug. Also methotrexate may suppress the bone marrow causing anemia and infection [2]. Chandraharan et al have described a 3-step Triple P conservative as a surgical alternative to peripartum hysterectomy for placenta accreta. This technique involve the preoperative ultrasongraphic diagnosis and mapping for the incision of the uterus away from the adherent placenta. Avoiding the separation of placenta from the attached myometrium. Pelvic devascularization by inflation of pre-positioned occlusion balloons in the anterior division of the internal iliac artery with myometrial excision. The excision of the myometrial wall with the adherent placenta and repair of the myometrial defect [8,9]. Our case have some similarities with the Triple P technique. It has sonographic and clinical clues such as a previous caesarean section with an anterior placenta previa as for the clinical suspicion of placenta percreta. Although our clinical approach to placenta percreta usually involves midline vertical skin incision with classic vertical uterine incision we have preferred Pfannenstiel incision because of the gestational age of the patient. Transverse uterine incision over the placental attachment border was also preferred. We preferred ligation of the hypogastric arteries instead of angiographic embolisation as our team has gynecological oncology background and experienced at retroperitoneal space surgeries.

In a recent study by Kilicci et al., 11 cases of placental invasion anomalies managed by segmental resection technic was reported. In this study, 9 of the patients were managed with uterine preservation, however, two of the cases were managed by cesarean hysterectomy due to various reasons. Our technic has many similarities with study mentioned above [10].

Overall; in selected cases with focal placenta percreta surrounding resection technique can be used by an experienced surgical team.

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