

Education-Family Physician Corner

Placenta Previa Percreta: Systemic Lupus Erythematosus Successfully Managed by Conservative Intervention

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Placenta Percreta is one of the most challenging and serious obstetric emergencies which can lead to obstetric hemorrhage and life-threatening complications.

We present a case of placenta percreta in a patient with systemic lupus erythematosus (SLE) diagnosed by Doppler ultrasound. The case was managed conservatively with uterine preservation. The patient was managed by a multidisciplinary team. No manipulation of the placenta was attempted. Methotrexate was used as adjunct therapy, and weekly follow-up by serial ultrasound scan and Beta Human Chorionic Gonadotropin (BHCG) levels measurements. Patient resumed her menstrual cycle after 7 months.

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The depth of placental invasion can be classified into three types: accreta, increta, and percreta. Placenta percreta is one of the most challenging and serious obstetric emergencies which can lead to obstetric hemorrhage and life-threatening complications¹. Placenta accreta is a spectrum of abnormal trophoblast invading the layers of the uterus. In Placenta increta, the chorionic villi invade the myometrium. Risk factors of placenta accreta include prior uterine incision, perforation and previous intrauterine procedure such as hysteroscopy with dilatation and curettage^{2,3,4}.

Systemic Lupus Erythematosus (SLE) is a serious autoimmune disease, which affects multi-organs in women of childbearing age⁵. As the SLE is well-known to be associated with comorbidities for the mother and the fetus, pregnancy was discouraged in those patients. However, in the last decades, with meticulous and multidisciplinary teams, patients with SLE had favourable outcomes with fewer complications^{6,7,8}.

The aim of this report is to present a case of Systemic Lupus Erythematosus (SLE) complicated by placenta previa percreta, which was successfully managed through a conservative approach.

THE CASE

A thirty-seven-year-old female (Gravida 4, Para 2, Abortion 1), known case of hypothyroidism on L-thyroxin, SLE and mixed connective tissue disease on Plaquenil and Azathioprine. The patient had a history of two lower segment cesarean sections, her last childbirth was nine years ago. Anterior placenta previa was detected during a sonographic examination at 28 weeks. The diagnosis was confirmed with ultrasound which revealed placenta previa percreta, see figure 1. The patient did not complain of hematuria and the urine analysis was within normal. The patient was counseled regarding the diagnosis and the potential obstetric complications. She was managed by a multidisciplinary team, which included a vascular surgeon, urologist, neonatologist and intensivist. During her antenatal follow-up, she was regularly seen by a rheumatologist with

no flare-up in her disease and received Dexamethasone at 32 weeks of gestation. A classical cesarean section was performed at 36 weeks of gestation.



Figure 1 (A)



Figure 1 (B)



Figure 1 (C)

Figure 1: Ultrasonographic Findings of Placenta Previa Percreta

(A) 2D Ultrasound Showing the Placenta Completely Covering the Internal Os and Loss of Normal Hypochoic Retroplacental Zone

(B) 2D Ultrasound Showing the Absence of Uterine-Bladder Interface and the Presence of Multiple Lacunae within the Placenta "Swiss-Cheese Appearance"

(C) 2D Color Doppler Ultrasound Showing Blood Flow within the Lacuna

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Intraoperatively, multiple large vessels in the lower uterine segment and the placenta reached up to the uterovesical pouch. Ultrasound was performed prior to incision of the uterus to avoid entering through the placenta. A classical incision made above the placental bed. A healthy neonate was extracted as breech, weighing 2.880 kg. The placenta was not separated for 40 minutes; however, there was no active bleeding. The decision to leave the placenta in situ was made. The umbilical cord was ligated and cut near the placenta; the uterus was closed in 2 layers using Vicryl 0. The abdominal wall was closed in layers. The estimated blood loss was +/- 1000 ml.

Postoperative evaluation of hemoglobin revealed a drop from 11.4 gm to 7.6 gm, and accordingly, the patient received two units of packed red blood cells (PRBCs). The patient was kept on third-generation cephalosporin with Metronidazole for 7 days. During that period, the patient did not pass any placental tissue. A single dose of 50 mg Methotrexate was given on day 6 postoperative. She was counseled of all possible risks including infection, endometritis, sepsis, and to consider emergency hysterectomy in case of intractable bleeding.

Postoperative care was uneventful and the patient was discharged on day 7 in a stable condition.

Follow-up with a serial ultrasound scan showed slow regression of the placental mass and the uterine cavity was empty at 5-months. Beta Human Chorionic Gonadotropin (BHCG) level with complete blood count (CBC) was measured every 2 weeks until the BHCG level dropped to zero. During the follow-up, the patient gave a history of passing brownish vaginal discharge and her menstrual cycle resumed after 7 months, which was heavy in the first cycle. However, there was no drop in her hemoglobin level and was controlled with a single dose of Tranexamic acid. She remained stable and asymptomatic.

Table 1: Beta Human Chorionic Gonadotropin Level

| Date | BHCG level |
|------------|------------|
| 17/04/2018 | 304.3 |
| 15/05/2018 | 51.4 |
| 29/05/2018 | 1 |
| 20/06/2018 | 0 |
| 08/07/2018 | 0 |
| 10/07/2018 | 0 |
| 26/11/2018 | 0 |

DISCUSSION

Cesarean hysterectomy remains the most common management in cases of PPH due to placenta previa accreta; however, it can be associated with severe blood loss and deprivation of future fertility⁹. Several reports showed the benefit of conservative management in selected cases^{10,11}. Different strategies can be used for conservative management in cases of placenta accreta with varying success rates¹². Medical treatment include Methotrexate, selective devascularisation either by ligation or embolization of the uterine artery, hemostatic suture and intrauterine packing (Bakri balloon)¹³⁻¹⁸.

Hemorrhage associated with placenta accreta can be avoided by not attempting to manipulate previously diagnosed placenta percreta. Methotrexate is used as an adjunct therapy to help in placenta involution and necrosis as reported in several case reports and prospective studies^{17,18}. Although there was a significant reduction of maternal BHCG serum level and

placental mass volume, the correlation between Methotrexate versus conservative management alone is unclear.

Mittal et al reported a case of SLE with placenta percreta which was complicated with thrombocytopenia during pregnancy. The patient had an elective lower segment cesarean section (LSCS) with a balloon catheter inserted in the anterior branch of the internal iliac artery¹⁹. However, despite this intervention and medical management, the patient had an emergency cesarean hysterectomy due to massive bleeding¹⁹. In our case, the patient had stable systemic lupus with no flare-up to preconception or during pregnancy with no complications. A multidisciplinary team should be involved in a selected case with minimal or moderate bleeding with stable SLE patient and no flare-up.

CONCLUSION

We report a successful outcome of our conservative management in a case at high risk of postpartum hemorrhage (PPH) and high risk of thrombosis in view of her underlying autoimmune disease.

We recommend proper counselling and keeping the patient aware of any sign of complications related to the conservative management or underlying disease.

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