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Case Report

Two Cases of Placenta Previa Terminated at 18 Weeks' Gestation

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Placenta previa is associated with increased maternal and fetal morbidity, caused primarily by hemorrhage, making an accurate diagnosis very important. However, diagnosis and treatment remain difficult, especially in the second trimester.

We treated two cases with placenta previa at 18 weeks' gestation. In both patients, the cervical os was still closed when bleeding increased, necessitating emergency cesarean section. Postoperative course and the course of the subsequent pregnancy were uneventful.

Terminating the pregnancy at the time of worsening of symptoms even in the second trimester should be considered as an option in the treatment of placenta previa.

During pregnancy, ultrasonography provides information on the status of not only the fetus but also the placenta. However, accurate diagnosis and treatment of placenta previa during the second trimester remain difficult. Many cases of placenta previa diagnosed during the early second trimester have an outcome of normal delivery (3). We report here two cases of placenta previa at 18 weeks' gestation in which termination of the pregnancy was necessary due to increased bleeding.

CLINICAL CASES

Case 1

A 29-year-old woman, gravida 1, para 1, was referred to our hospital because of vaginal bleeding after cervical cerclage. She had previously delivered vaginally her first female infant (3,536 g) after cervical cerclage under the diagnosis of cervical incompetency. In the pregnancy discussed here, cervical cerclage was performed at 15 weeks' gestation for the prevention of preterm delivery. Ultrasonography at that time demonstrated no abnormal findings. Twelve days after surgery sudden vaginal bleeding occurred. On admission in the 17th week of gestation, slight bleeding from the external cervical os was noted, and ultrasonography in our hospital demonstrated placenta previa (Fig. 1). The placenta overlapped the internal cervical os and the distance from the lower placental edge to the internal os was 28 mm.

Despite the administration of oral ritodrine hydrochloride, a β -adrenergic stimulant, bleeding continued in the amount of approximately 800 ml per day. The position of the placenta did not change. After appropriate counseling, the patient chose to terminate the

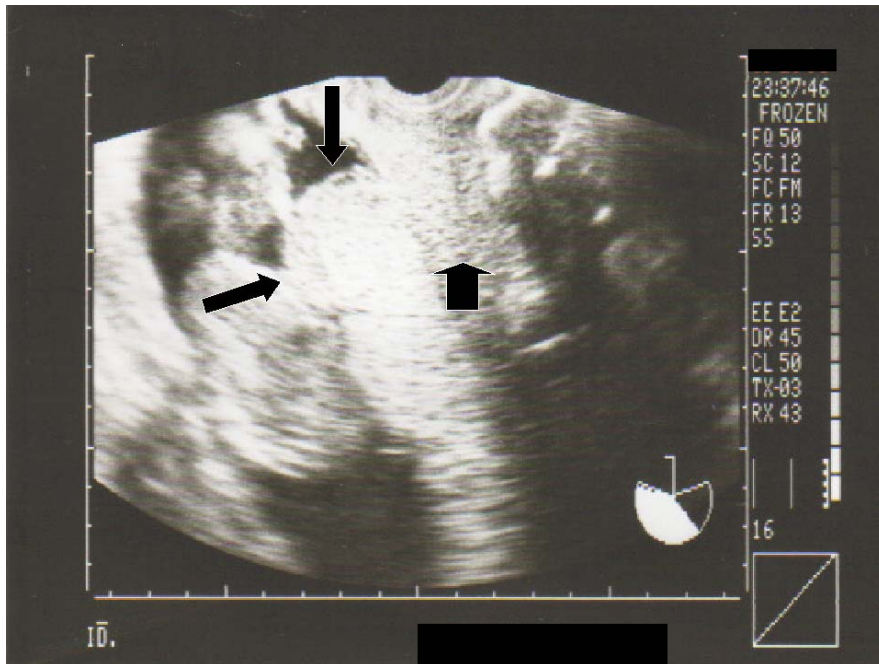


FIG. 1. Ultrasonography (case 1). Placental edge (long arrows) is located over the internal os (thick arrow) at 17 weeks' gestation.

pregnancy because she did not want to undergo the risk of life-threatening bleeding. Cervical os was still closed, and emergency cesarean section was performed at 18 weeks' gestation, 6 days after admission. We opened the abdomen with a vertical midline incision. A transverse incision of the lower uterine segment was made, and an infant weighing 175 g was delivered. The placenta covered the internal cervical os and was ablated easily. A double-layer closure was performed as usual. The operative bleeding, including amniotic fluid, was 900 ml, but bleeding continued after surgery. The hemoglobin value was decreased from 8.3 g/dl to 5.6 g/dl, and 5 units of banked concentrated red blood cells were transfused with prophylactic administration of gabexate mesilate for disseminated intravascular coagulation. After blood transfusion, bleeding decreased gradually.

The patient was discharged in good condition 12 days after surgery. Two years later, she had a normal pregnancy, with the placental position being normal, and delivered by cesarean section a male infant weighing 3,010 g. No uterine abnormalities were evident during the surgery.

Case 2

A 27-year-old woman, gravida 2, para 1, was referred to our hospital with vaginal bleeding of 3 days' duration. She had delivered her first infant vaginally, a female weighing 4,100 g. The cervical os was closed but a little fresh bleeding was seen. Ultrasonography demonstrated that the lower placental edge overlapped the internal cervical os by 33 mm (Fig. 2), and the patient was admitted for treatment at 16 weeks' gestation.

Bleeding continued and increased gradually despite the intravenous administration of ritodrine hydrochloride for uterine contractions. The position of the placenta did not change. On admission day 16, after receiving informed consent, emergency cesarean section was performed at 18 weeks' gestation. We opened the abdomen with a vertical midline incision. A

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transverse incision of the lower uterine segment was made, and an infant weighing 258 g was delivered. The placenta covered the internal cervical os and was ablated easily. A double-layer closure was performed as usual. Operative bleeding including amniotic fluid was 550 ml, and slight bleeding continued after surgery. The hemoglobin level had fallen from the preoperative value of 10.1 g/dl to 7.2 g/dl, but homologous blood was not transfused.

The patient was discharged in good condition 12 days after surgery. Six months later, she had a normal pregnancy, including a normal placental position, and subsequently delivered by cesarean section a male infant weighing 3,458 g. No abnormal findings of the uterus were noted at surgery.

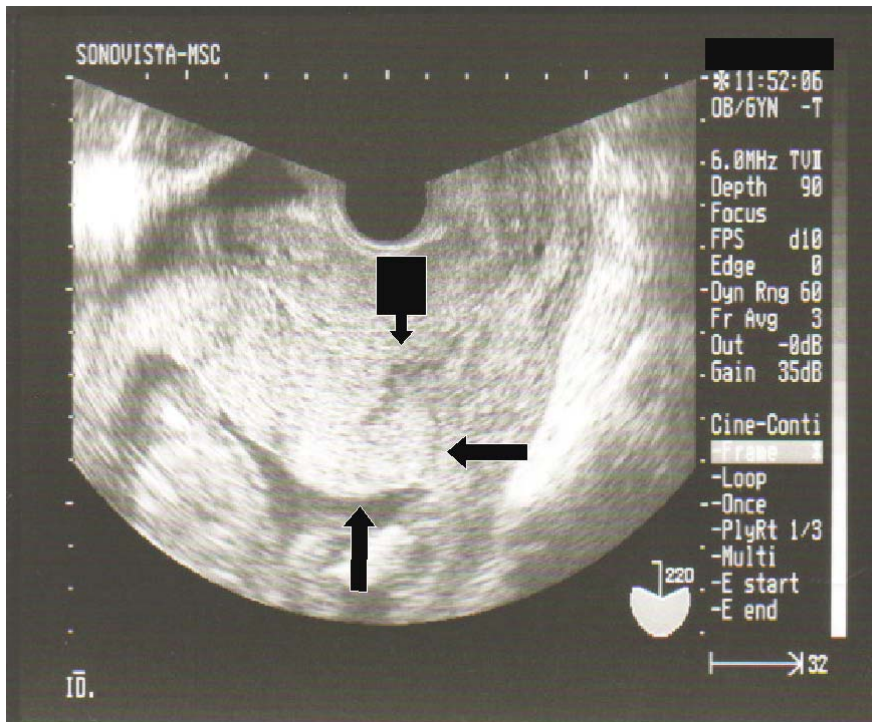


FIG. 2. Ultrasonography (case 2). Placental edge (long arrows) is located over the internal os (thick arrow) at 16 weeks' gestation.

DISCUSSION

Placenta previa leads to increased maternal and fetal morbidity, caused primarily by hemorrhage, particularly in undiagnosed cases. Thus, an accurate and early diagnosis of placenta previa is important and useful in clinical obstetrical practice (8).

Numerous studies have demonstrated that transvaginal ultrasonography is a sensitive and specific tool for accurate depiction of the placental location when placenta previa is suspected (5, 9). It is well known that the incidence of so-called placenta previa decreases with advancing gestational age, especially during the second trimester (3). Mustafe et al. (7) reported that when the lower placental edge overlaps the internal cervical os by 23 mm at 11-14 weeks the probability of placenta previa at term is 8% with a sensitivity of 83.3% and specificity of 86.1%.

As for treatment, Besinger et al. (4) reported that tocolytic intervention in cases of symptomatic preterm previa was associated with clinically significant prolongation of pregnancy and increased birth weight. Arias (1) conducted a clinical trial of cervical cerclage for placenta previa and found that this intervention was associated with a significantly better perinatal outcome, fewer neonatal complications, and greater birth weight. Maternal bleeding was also less frequent and severe in the cerclage group. In our case 1, tocolysis may be inadequate because the cervical cerclage was not performed for placenta previa. In our case 2, a cervical cerclage could not be placed because of continuous bleeding.

The accurate diagnosis and treatment of placenta previa remain difficult in the second trimester. In these two cases, placenta previa had not been diagnosed before the patients were referred to our hospital. The cervical os was still closed while bleeding was increasing, and, after informed consent, emergency cesarean section was performed at 18 weeks' gestation. With a patient experiencing placenta previa has massive hemorrhage during a cesarean delivery, hemostasis is first attempted using uterotonic drugs, uterine massage, and intrauterine packing. However, if these maneuvers fail, then uterine artery ligation, whole myometrial suture, and subendometrial vasopressin injection should be attempted (6). Peripartum hysterectomy sometimes must be performed to save the life of the mother (2). Fortunately, the postoperative course and subsequent pregnancy were uneventful in both patients.

Terminating the pregnancy at the time of worsening of symptoms even in the second trimester was considered as an option in the treatment of these patients with placenta previa.

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