ECTOPIC PREGNANCY AFTER CONSERVATIVE MANAGEMENT OF PLACENTA ACCRETA: A CASE REPORT

Chun-Kuang Yang, Hsiao-Lin Hwa, Jin-Chung Shih, Ming-Chieh Lin, Fon-Jou Hsieh*
Department of Obstetrics and Gynecology and Department of Pathology, College of Medicine, National Taiwan University Hospital, Taipei, Taiwan.

SUMMARY

Objective: Placenta accreta can be managed with preservation of the uterus, especially when further fertility is intended. We report a case of placenta accreta diagnosed intraoperatively and treated conservatively that was followed by an ectopic pregnancy.

Case Report: A 32-year-old woman was found to have placenta accreta during cesarean section. Some pieces of the placenta were left in situ after bleeding was controlled. The patient was followed up using levels of β-human chorionic gonadotropin. Hysteroscopy revealed fibrotic and scar tissue at the site of retained placenta 1 year later. The patient did not conceive until 2 years later, but it was an ectopic pregnancy.

Conclusion: There are few reports of successful pregnancy following conservative treatment for placenta accreta. Conservative treatment may increase the risk of secondary infertility, recurrent placenta accreta, and probably ectopic pregnancy. [Taiwanese J Obstet Gynecol 2004;43(3):175–178]

Key Words: placenta accreta, preservation of fertility, ectopic pregnancy

Introduction

Placenta accreta is defined as abnormally firm adherence of placenta to the uterine wall [1]. The placenta may extend into the myometrium (placenta increta) or through the myometrium to the uterine serosa or adjacent organs (placenta percreta). An abnormally adherent placenta is associated with considerable maternal morbidity such as severe hemorrhage, uterine perforation and infection, and even mortality. The incidence of placenta accreta is 1 in 7,000 to 1 in 1,900 pregnancies [1]. The standard treatment for placenta accreta is hysterectomy. To preserve fertility, conserva-

tive treatment has been used in selected cases. We report the first case of ectopic pregnancy after conservatively treated placenta accreta and discuss the fertility outcome of this condition.

Case Report

A 32-year-old woman, gravida 2, para 0, was referred to our hospital at 31 weeks’ gestation for antepartum hemorrhage. There was a history of abortion by dilatation and curettage (D&C) in her first pregnancy. She had had an uneventful prenatal course until this episode of vaginal bleeding, which persisted for about 1 week. On examination, vital signs were stable. There were regular uterine contractions and a reactive fetal heart rate. Ultrasonography revealed a fetus with vertex presentation and adequate size for gestational age. The placenta was low-lying. Routine laboratory studies were normal at admission. Rupture of the membrane was noted on the fourth day of admission. Fever, leukocytosis and elevated C-reactive protein were noted lat-
er. Under the impression of chorioamnionitis, cesarean section was arranged 10 days after admission.

A low transverse cesarean section was performed under spinal anesthesia. A premature male infant weighing 1,944 g was delivered. He had Apgar scores of 7 and 9 at 1 and 5 minutes, respectively. An attempt was made to remove the placenta manually, but no satisfactory plane between the placenta and myometrium could be found. The placenta was ablated piece by piece. Throughout the procedure, the patient's bleeding was fair and vital signs were stable. A 3 × 3 × 2 cm lobule of the placenta deeply invaded the myometrial layer, so the procedure was discontinued for fear of uterine rupture. Meanwhile, the bleeding was well controlled at the implantation site and at the retained placenta by local methylergonovine, oxytocin, and prostaglandin E2 injection. Vital signs, urinary output, and signs of possible infection were closely monitored postoperatively. Parenteral oxytocin and methylergonovine were administered. A broad-spectrum antibiotic was given to treat infection. The patient was discharged on the fifth postpartum day with uncomplicated recovery. Follow-up serum β-human chorionic gonadotropin levels became normal within 6 weeks and normal menstrual cycles returned 12 weeks after delivery. The size of the echo-complex shadow on the left lateral wall of the uterus decreased gradually from 7 × 6 cm 1 month postoperatively (Figure 1) to 1.6 × 1.0 cm 5 months postoperatively (Figure 2).

This patient did not conceive in the subsequent year. Hysteroscopic examination and biopsy showed a 2 × 2 cm light yellowish flat mass attached to the left endometrial wall (Figure 3). Pathologic examination of the tissue showed hyalinized fibrotic fragments with prominent calcification.

One year later, she became pregnant. Unfortunately, her early pregnancy course was complicated by vaginal bleeding and lower abdominal pain, and a right tubal pregnancy with internal bleeding was diagnosed. She underwent emergency laparoscopic right salpingectomy and was discharged the following day.

Discussion

Placenta accreta is defined as abnormal placentation such that the villi attach directly to the myometrium, without an intervening decidua. A definitive diagnosis can only be made from histologic findings, but assumptive diagnosis should be made if there is difficulty in separating the placenta. The incidence of placenta accreta in a recent large-scale study was 1 in 111 deliveries [2], compared with 1 in 7,000 to 1 in 1,900 in previous studies [1], and 1 in 1,227 reported in our hospital [3]. Aside from variations in study populations and
differences in definition, it is believed that the rising incidence may be attributed to the rising number of pregnancies with risk factors, including previous cesarean delivery, advanced maternal age, high gravidity, multiparity, and previous curettage and placenta previa [2]. The curettage history in this case may be associated with the placenta accreta.

Antenatal diagnoses of placenta accreta can be made by color Doppler ultrasonography [4], magnetic resonance imaging [5], and elevated serum α-fetoprotein levels [6]. Color Doppler ultrasound gives the most specific diagnostic criteria such as diffuse or focal intraparenchymal placental lacunar flow, bladder-uterine serosa interphase hypervascularity, prominent subplacental venous complex, and loss of subplacental Doppler vascular signals [4]. However, the ultrasonographic findings at first admission in this case were unremarkable except for a low-lying placenta.

Cesarean hysterectomy remains the gold standard treatment for placenta accreta. Conservation is considered only when the patient’s bleeding is not excessive, hemodynamics are stable, and further fertility is desired. Once conservative treatment has been chosen, refractory hemorrhage during and after delivery and intrauterine infection should be considered. Various surgical and medical methods for hemostasis such as direct packing, overseeing the uterine defect, wedge resection of the implantation site, bilateral hypogastric arterial occlusion, methotrexate injection, and subendometrial vasopressin infiltration have been used for conservative treatment [7,8]. Advances in antenatal diagnosis, improvements in antibiotics, and the multiple intraoperative hemostasis options make preservation of the uterus more and more feasible.

Although infertility or subfertility was encountered in our patient and others who have been treated conservatively, several cases of successful pregnancies have been reported [9–17]. Remarkably, placenta accreta recurred in almost half of the cases, which implies another risk that should be taken into account in the initial decision for conservation.

The association between previous placenta accreta and ectopic pregnancy has not been established. Theoretically, any condition that prevents or retards migration of the fertilized ovum to the uterus could predispose a woman to ectopic gestation [18]. The known risk factors for ectopic pregnancy include current use of an intrauterine device, a history of infertilitiy, a history of pelvic inflammatory disease, prior tubal surgery, prior spontaneous abortion, prior induced abortion, and smoking [18–20]. Whether the retained placenta affects subsequent implantation is unknown. Intrauterine procedures such as D&C or hysteroscopy are used for intrapartum management or postpartum follow-up [13]. Retained placenta or oversieving of the implantation site may increase the chance of chronic endometritis.

In conclusion, ectopic pregnancy following conservatively treated placenta accreta is rare. The correlation between ectopic pregnancy and previous placenta accreta deserves further evaluation.

References