A case of incomplete uterine rupture during cervical by double-balloon catheter at 15 weeks of gestation

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Objective
Cesarean section is the most commonly performed surgery in obstetrics and the incidence is increasing with rates as high as 17% to 25% in some countries. In certain cases, resulting scar dehiscence may lead to uterine rupture during pregnancy and delivery procedures. Moreover, cesarean scar dehiscence can be a site for developing ectopic pregnancy. In such cases, uterine rupture can be prevented by a medical approach or surgical procedures. Extrauterine pregnancy in a dehiscent cesarean scar has been described after embryo transfer. Cesarean scar defects also have been reported to be etiological factors in many clinical conditions, such as dysmenorrhea and intermenstrual bleeding.

Methods
We report a patient with one previous cesarean who was admitted to our clinic at 15 weeks of gestation with anhydramnios and underwent cervical ripening by double balloon and in which incomplete uterine rupture associated with the implantation of the placenta in the uterine dehiscence scar developed.

Results
A 32-year-old pregnant woman (gravida 3, para 2), with a history of one vaginal term delivery and one cesarean section was admitted to our clinic with anhydramnios at 15 weeks of gestation. Ultrasonography revealed an anhydramniotic single live fetus compatible for 15 weeks and the placenta was located anteriorly on the previous cesarean scar. After written approval of pregnancy termination was provided, transcervical double-balloon catheter was inserted for cervical ripening prior to curettage. Four hours after the application the double balloon was removed as the cervical dilatation was approximately 4 cm and enough for the expulsion of the fetus. After the fetus was delivered the placenta could not be removed totally and massive bleeding occured that could not be managed by medical therapy. When the blood pressure decreased to 70/40 mmHg and the hemoglobin level was 5. 1 g/dL an emergency laparotomy was performed with the suspicion of uterine rupture. During laparotomy incomplete uterine rupture and the visible placenta were noted at the site of previous uterine dehiscence scar. Heavy vaginal bleeding continued even after bilateral ligation of the uterine arteries and suturing of the dehiscence, hence an abdominal hysterectomy had to be performed. Total estimated blood loss during the operation was 1500 ml; the patient was transfused 7 units of packed red blood cells and 5 units of fresh frozen plasma. The patient recovered uneventfully. The pathological examination of the specimen revealed no signs of placental invasion anomaly but the placenta located at the uterine dehiscence scar associated with previous cesarean section.

Conclusion
Cesarean deliveries cause risks for future pregnancies in part because of placental problems such as placenta accreta and percreta and uterine rupture. As the cesarean rate rises, the risk of these are rare but life-threatening problems also increase. Understanding subsequent abnormal placentation and uterine scar separation or rupture could lead to their prevention. With the dramatic rise in cesarean deliveries accurate assessment and prediction of pregnancies at risk for uterine rupture and dehiscence is needed. Although rare, this condition can be catastrophic. It would be ideal to have a technique that would reliably assess the uterine scar and predict uterine rupture before trial of labor after cesarean delivery.