

Case Report

Delayed presentation of uterine perforation with ovary migration after dilatation and curettage

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Abstract: We present a rare but serious uterine perforation. A 31-year-old woman was referred to our department for hyperechogenic mass in uterus on ultrasonography after Dilation and curettage (D&C) for the adherent placenta and retained products of conception. Transvaginal ultrasound examination showed that a mass with several follicles measuring 35×29 mm was seen emanating from the right posterior wall of the uterine cavity, and there was absence of the myometrial tissue. A hysteroscopy and laparoscopy showed a uterine perforation with ovary incarceration. The ovary was rehabilitated, and the uterine perforation site was incised. D&C can not be performed when delayed presentation of uterine perforation with migration of an extrauterine organ is suspected, particularly, some of them are asymptomatic after a difficult intrauterine operation.

Keywords: Uterine perforation, ovary, migration, hysteroscopy, laparoscopy

Introduction

Uterine perforation is one of the serious complications of dilation and curettage, but extremely rare. The risk of uterine perforation increases with adherent placenta and placenta implantation in postpartum. The most commonly perforated area is the relatively avascular uterine fundus [1]. Many perforations are undetected and not recognized or confirmed for the patient during general gynecologic intrauterine procedures, but in postpartum D&C or surgical abortion, the uterine perforation usually causes a serious problem. The perforation may accompany intestinal injuries, which require surgery. Some previous reports have described that the small intestine [1-3], appendix [4] or omentum [5] entered the uterine cavity because of uterine perforation. We present a case of ovary transposition after perforation as a serious complication of D&C.

Case report

We presented a 31-year-old woman, gravida 1, para 1, who visited the gynecology of Qilu Hospital, Shandong University. The study protocol was approved by the Ethics Committee of

Qilu hospital, Shandong University, People's Republic of China. She had given the informed consent to submit the incident as a case report. She had gone to several hospitals previously for hyperechogenic mass in uterus on ultrasonography. The patient had also given birth to her first child 23 months before this visit. She had a normal vaginal birth and reported having dilation and curettage twice because of the adherent placenta and retained products of conception. Seven months after delivery, the menses returned, but menstrual bleeding lasted from 5 days before pregnancy to 15 days and the menstrual cycle was normal.

After the last D&C, ultrasounds were ordered and showed an abnormal uterus and a hyperechogenic mass in uterus without right ovary demonstrated. Ultrasounds were ordered in another hospital and suggested that the hyperechogenic mass maybe the right ovary. She presented at Qilu Hospital and the ultrasound showed that a mass with several follicles measuring 35×29 mm was seen emanating from the right posterior wall of the uterine cavity, and there was absence of the myometrial tissue (**Figure 1**). Magnetic resonance imaging (MRI) had also been used and both sagittal and trans-

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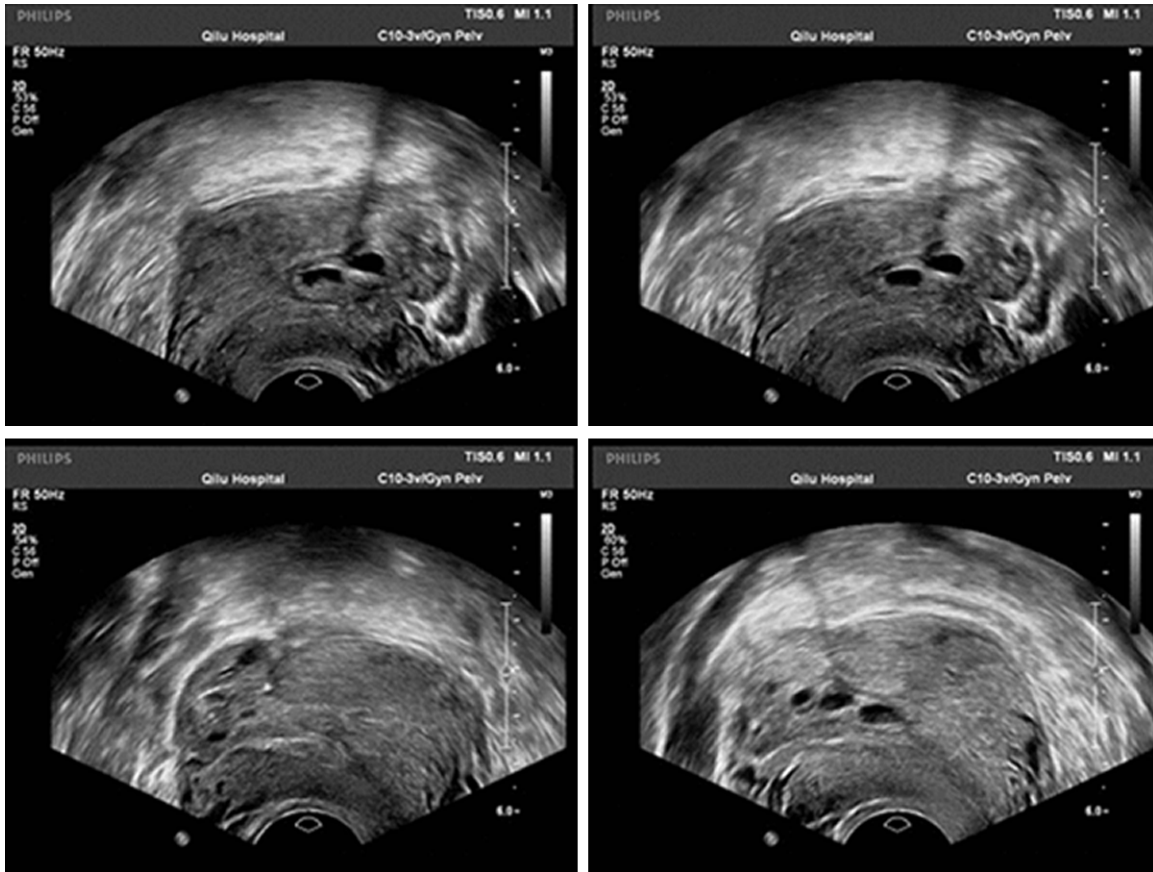
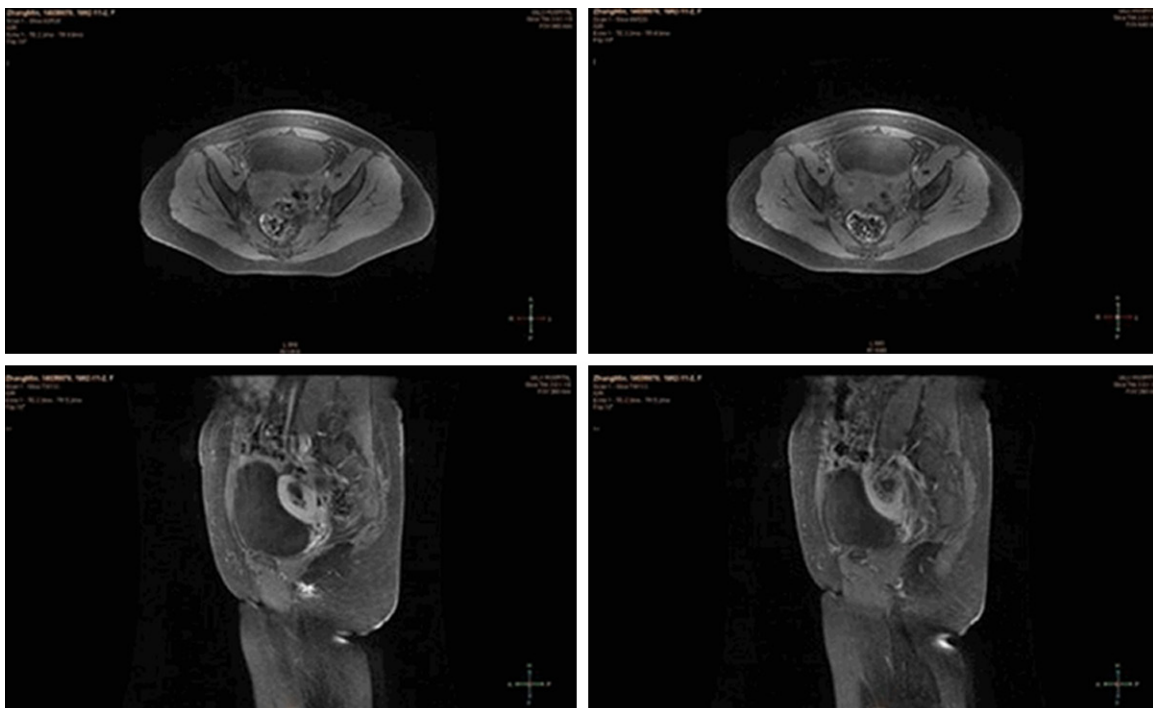


Figure 1. Ultrasound image showed that a mass with several follicles was seen emanating from the right posterior wall of the uterine cavity and there was absence of the myometrial tissue.



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Figure 2. Both sagittal and transverse T1 and T2-weighted MRI sequences. The MRI reported that the mass was embedded in the right posterior uterus wall.

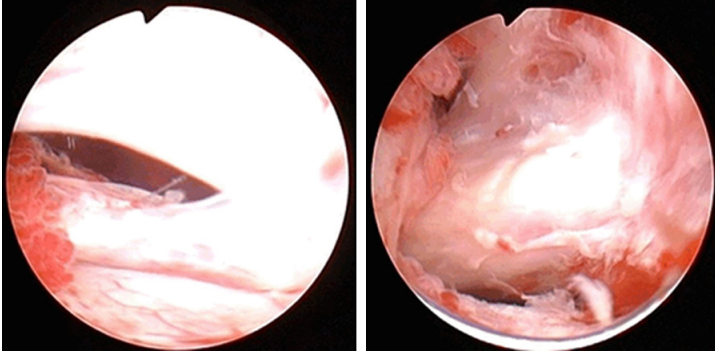


Figure 3. Hysteroscopy showed that the right ovary was clearly visible in the uterine cavity.

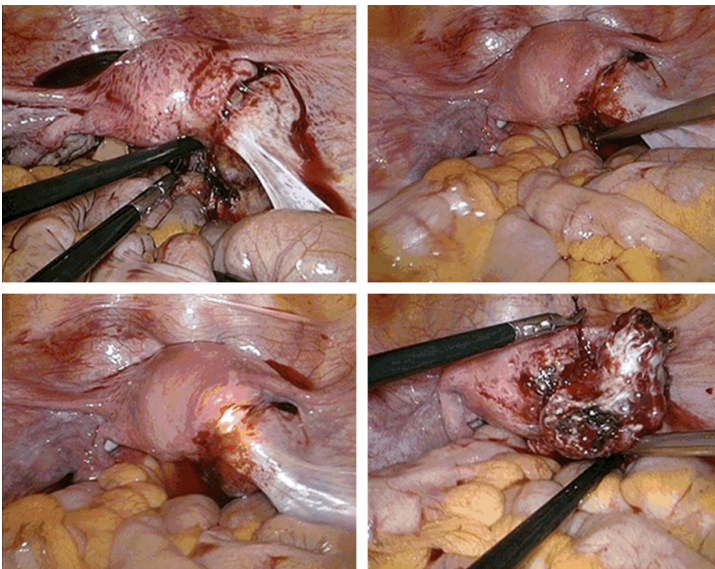


Figure 4. Laparoscopy showed that part of the right ovary and oviduct migrated to uterine cavity.

verse T1 and T2-weighted MRI sequences clearly showed that the mass was embedded in the right posterior uterus wall (**Figure 2**).

Consulting the woman and her husband, the decision for hysteroscopy and laparoscopy was made after the ultrasound and MRI. The projections appear with hysteroscopy and laparoscopy. By hysteroscopy, the right ovary was clearly visible in the uterine cavity (**Figure 3**). But the distention of the uterine cavity disappeared because of the uterine perforation. At laparoscopy, we found part of the right ovary and oviduct migrated to uterine cavity (**Figure 4**). The

ovary rehabilitated, and the uterine suture was performed. Then the uterine cavity was completely distended. Twelve days later, she had recovered and could be discharged from the hospital.

Discussion

Uterine perforation is extremely rare in D&C. Many reports on it were about device-related complications [6, 7]. Kaali found that uterine perforation occurred in 14/706 first-trimester elective abortion (1.98%) in 1989 [8]. There was limited information about the number of uterine perforation required operative intervention as D&C complications. The majority of serious uterine perforations were reported as case report. The incidence rate can not be identified, because many uterine perforations were successfully treated with conservative management and the cases were not reported. Many perforations went undetected and were not recognized, and the uterus was most commonly perforated during dilation or uterine sounding [9]. Under this condition, the serious complications were extremely rare. When instruments pass further into the uterine cavity than appropriate for postpartum

uterine, the uterine perforation maybe occur. And when the uterine perforations were confirmed with the appearance of fat or bowel in the suction curette or at the cervical, the perforation may accompany intestinal injuries which required surgery.

Only a small percentage of women with perforation suffer intestinal injuries, and the ovary is much less. Complications of uterine perforation were not discussed in this case. There are several learning points from this case. When ultrasounds showed an abnormal uterus and a hyperechogenic mass with several follicles in

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uterus after D&C and without heavy vaginal bleeding and clinical symptoms, the next treatment should be careful. Delayed presentation of uterine perforation is extremely rare. Because the incarcerated organs were important organs, the uterine perforation was diagnosed and treated from 4 weeks to 5 years after D&C [2, 10]. In our case, uterine perforation with ovary incarceration was diagnosed and treated nearly 2 years after D&C. Under the situation, the risk of D&C is great. If the next treatment was D&C in this case, the woman would lose her right ovary.

In summary, uterine perforations are possible complications of D&C. Perforation should be suspected when an ultrasonography revealed hyperechogenic mass with several follicles in postpartum uterus without ovary demonstrated, especially in a woman who was asymptomatic after a difficult intrauterine operation. The ultrasound and MRI must be used for the detection and the D&C can not be performed.

Disclosure of conflict of interest

None.

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