A Delayed Case of Uterine Perforation with Omental Adhesions

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Abstract

Uterine perforation is an uncommon but potential risk during all intrauterine procedures. We display a set of images from ultrasound, hysteroscopy, and laparoscopy, as well as a video from laparoscopy, pertaining to a case of uterine perforation with omental adhesions. The complication was diagnosed several months after dilatation and curettage of the uterus for a miscarriage following a missed miscarriage. This is a rare but serious complication following a commonly performed procedure and the case highlights the importance of investigating new symptoms even after a seemingly uncomplicated procedure.

Keywords: Complication, miscarriage, uterine perforation

INTRODUCTION

Uterine perforation is an uncommon but potential risk during all intrauterine procedures. For 1st and 2nd trimester pregnancy-related procedures, the incidence is <0.5%.[1] Many perforations are not recognized and small perforations often heal without any further complications. Rarely, perforations may be associated with injury to nearby blood vessels, the bladder, bowel or omentum, resulting in hemorrhage, or sepsis requiring surgical management. We present images from ultrasound, hysteroscopy, and laparoscopy, as well as a video from laparoscopy, pertaining to a case of omental adhesions secondary to uterine perforation, diagnosed several months after dilatation, and curettage (D and C) of the uterus for a miscarriage.

CASE REPORT

The patient is a 26-year-old female who is G3P1. She had a cesarean section followed by D and C for a miscarriage. She was an otherwise well woman with no other medical or surgical history. The most recent pregnancy, unfortunately, also resulted in a miscarriage, for which she underwent her second D and C. She represented with bleeding 11 days later and was diagnosed with retained products of conception and underwent another D and C. This time under ultrasound guidance by a senior level registrar. Both procedures were uncomplicated, and the histopathology demonstrated only products of conception.

Approximately 3 months later, she presented to our unit with chronic intermittent pelvic pain. As part of a diagnostic workup, an ultrasound was performed, which demonstrated omentum embedded into the myometrium, suggestive of a previous uterine perforation [Figure 1].

She underwent hysteroscopy and diagnostic laparoscopy to further investigate the US findings. On hysteroscopy, filmy intrauterine adhesions were seen, which were divided. Tissue that resembled omentum was also seen protruding into the uterine cavity at the level of the fundus through a two-centimeter full-thickness defect.

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How to cite this article: La S, Mizia K, Arrage N, Kapurubandara S. A delayed case of uterine perforation with omental adhesions. Gynecol Minim Invasive Ther 2021;10:174-6.
On laparoscopy, omentum could be seen adherent to the fundal defect and the anterior abdominal wall [Figure 2]. The rest of the pelvis was normal. Instrumentation and curette of the uterus were only done under laparoscopic guidance after the omentum was released. The amount of energy used during dissection was limited as much as possible to minimize thermal injury to the myometrium. The full-thickness defect in the fundus could be seen where the uterine manipulator was visible laparoscopically. The defect was repaired in one layer with 1-polydioxanone sutures [Video 1 (This video is also available at http://www.apagemit.com/page/video/show.aspx?num=269&page=1)]. This suture material was chosen because it is monofilament, absorbable and lasts longer, and given the long-standing fistulous tract. To prevent secondary intra-uterine adhesions, a Foley’s catheter was inserted into the uterus, and she was commenced on a regimen of estrogen and progesterone postoperatively. Histopathology results confirmed omental tissue.

A sonohysterogram was performed 11 weeks later, which demonstrated that the defect had healed, with no evidence of a persisting fistula. However, there were some thick intrauterine adhesions in the right cornua, which were distorting the cavity shape. As she is planning further pregnancies in the near future, we plan to take her back to the theater to divide these adhesions in due course. Should she conceive in future, she has been advised to undergo an elective cesarean section at term (37–38 weeks) given the fundal full-thickness nature of the uterine defect.

**DISCUSSION**

Uterine perforation is an uncommon but recognized risk during all intrauterine procedures. For 1st and 2nd trimester pregnancy-related procedures, the incidence is approximately 0.5% but because many perforations are not recognized and small perforations often heal without any further complications, the true incidence is difficult to estimate.

Uterine perforation should be suspected when a uterine sound, dilator, or instrument passes beyond the expected length of the uterus or when there are signs of a visceral or vascular injury, such as excessive bleeding or acute hypotension. The most common site of perforation is the uterine fundus, which is usually associated with minimal bleeding. However, perforation more laterally can cause injury to the uterine vessels or broad ligament, resulting in severe hemorrhage, or a hematoma.

In some cases, uterine perforation is not immediately recognized during the procedure and the patient presents as a result of associated complications. In our case, the patient remained hemodynamically stable despite the uterine perforation, and her only symptom was persistent pelvic pain. Rarely, perforations may be associated with injury to nearby blood vessels, the bladder, bowel or omentum, resulting in hemorrhage, or sepsis requiring surgical management. There have also been case reports of herniation of bowel,[2] omentum,[3] ovary,[4] and appendix[5] into defects caused by uterine perforation.

**CONCLUSION**

We demonstrate a video presentation of the imaging workup and subsequent management of a persistent delayed presentation of a uterine defect following a perforation at the time of D and C of the uterus for the management of a miscarriage.

This is a case of delayed diagnosis of a complication caused by uterine perforation after a D and C. It highlights the importance of investigating new symptoms, even after a seemingly uncomplicated procedure to ensure these rare complications are excluded.
Ethical Approval
This study was approved by the IRB of Western Sydney Local Health District (Approval number: 1911-09).

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

Acknowledgment
We would like to thank the Department of Obstetrics and Gynecology for supporting this project and the patient for graciously allowing her case to be described.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

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