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Ovarian transmigration of intrauterine device

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Abstract

Extrauterine translocation of intrauterine device (IUD) to peritoneal cavity is an uncommon event, moreover the ovarian embedding of a transmigrated IUD is very rare, and only two previous cases have been reported in the literature. We present a single case treated with laparoscopy. The aims of this study were to focus attention on the utility of preoperative computed tomography in planning the best surgical approach and to describe the two-port technique.

Key words: complication, extrauterine translocation, intrauterine device, laparoscopy, preoperative computed tomography.

Introduction

Extrauterine translocation of intrauterine device (IUD) to peritoneal cavity is an uncommon event usually associated with uterine perforation. Moreover, this is also often associated with severe complications such as bowel perforation, mesentery perforation, urinary bladder perforation, rectal stricture and recto-uterine fistula. Many cases have been described in the literature. In contrast, ovarian embedding of transmigrated IUD is very rare, and only a few cases have been reported in the literature. We herein describe a case of right ovarian IUD migration treated with two-port laparoscopy.

Case report

A 38-year-old Egyptian woman presented to the gynecology clinic with severe dysmenorrhea. She also had a single episode of lower abdominal pain for 24 h, 2 weeks earlier. She described the pain as constant, mostly on the right side. She denied any other symptoms. Her past clinical history was silent. A T-shaped IUD had been inserted 2 years previously and she did not recall any complications. At examination the IUD string was not found. The abdomen presented without tenderness and pain. IUD was not visualized on transvaginal ultrasound. Subsequent abdominal X-ray showed a T-shaped opaque device in the lower right pelvis (Fig. 1). Three weeks later, computed tomography (CT) confirmed IUD migration to the right ovary, outside of any viscera (Fig. 2).

On discussion with the patient, diagnostic laparoscopy to remove the IUD was suggested.

On general anesthesia, an 11-mm intra-umbilical trocar was placed. The first port position was decided with cosmetic intent. Due to Trendelenburg position and the absence of adhesion, complete pelvic exploration was possible. A white T-shaped IUD was found partially embedded in the right ovary, adhering to the fimbria. Left 5-mm second abdominal access was used to collect and remove the device with a simple pull (Fig. 3). The second port was positioned by the left iliac fossa, sufficiently distant from the IUD to facilitate good endograsp manipulation. The postoperative course was uneventful, and the patient was discharged 8 h later. At follow-up the dysmenorrhea was completely resolved.

Discussion

The IUD is one of the most popular and effective reversible contraceptives in the world.[1] Its most frequent surgical complication is uterine perforation during insertion, ranging from 1 to 3 per 1000 insertions.[2] Later perforation is rare but some cases have been described. Uterine

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Figure 1 Abdominal X-ray showing a T-shaped opaque device in the lower right pelvis.

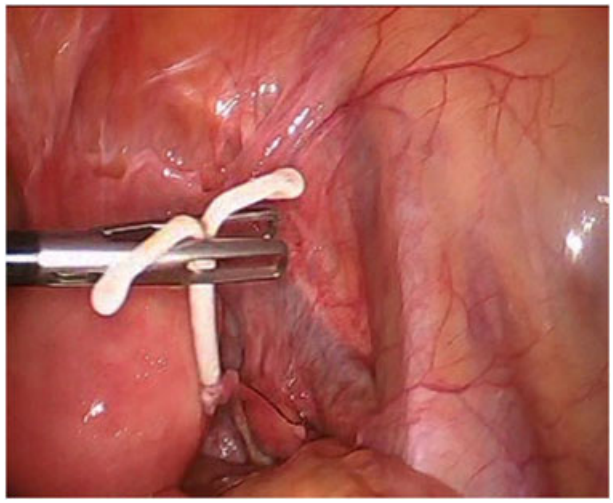

Figure 3 Removal of the intrauterine device via the second access port.

perforation and viscera migration can often lead to serious complications, but uterine contractions can also cause IUD migration through the tube to the peritoneal cavity without uterine perforation.[3] It is a very uncommon occurrence and the mechanism is still not clear. It is associated with non specific symptoms and complications.

Several methods have been described to remove IUD that has migrated outside the endometrial cavity or intra-abdominally. The currently accepted treatment for malpositioned IUD is removal on surgical laparoscopy or laparotomy.

We have reported on the present case because only two similar cases have been described in the literature.[4]

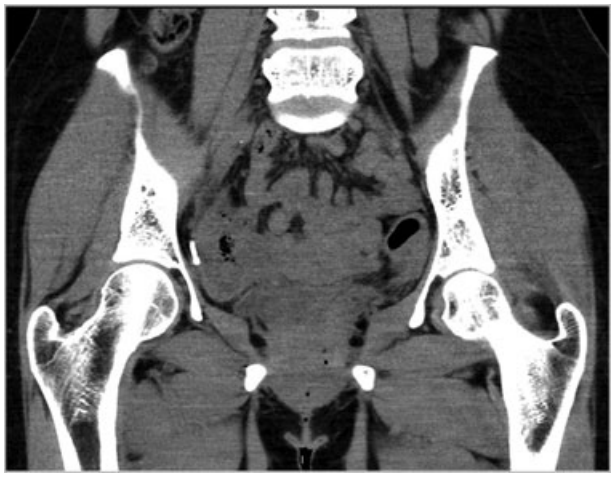

Figure 2 On computed tomography the device was imbedded in the right ovary, outside of any viscera.

Moreover, we want to focus attention on the utility of CT in the case of pelvic IUD migration. CT is extremely effective in the preoperative determination of device placement (in the peritoneal cavity or in the viscera) and optimization of the surgical approach. In the case of intraperitoneal placement we suggest laparoscopy and, in particular, the two-port approach. We adopted this technique because the umbilical port, which is not only a very cosmetic approach, also allows complete surgical field exploration for optimal positioning of the smaller, second incision to facilitate collection of the IUD. To conclude, in experienced hands this technique is successful in IUD location and removal.

Disclosure

The authors declare no conflicts of interest.

References

1. Chi E, Rosenfeld D, Sokol T. Laparoscopic removal of an intrauterine device perforating the sigmoid colon: A case report and review of the literature. *Am Surg* 2005; **71**: 1055–1057.
2. Harrison-Woolrych M, Ashton J, Coulter D. Uterine perforation on intrauterine device insertion: Is the incidence higher than previously reported? *Contraception* 2003; **67**: 53–56.
3. Ratnam SS, Tow SH. Translocation of the IUD. In: Zatuchni GI (ed). *Postpartum Family Planning*. New York: McGraw-Hill, 1970; 371–384.
4. Verma U, Verma N. Ovarian embedding of a transmigrated intrauterine device: A case report and literature review. *Arch Gynecol Obstet* 2009; **280**: 275–278.

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