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CASE REPORT

Intra-abdominal Migration of an Intrauterine Device – A Case Report

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ABSTRACT

The intrauterine device is one of the most commonly used contraceptive methods in the world. This method comes with some complications, including uterine perforation with secondary migration into the abdominal cavity. Intra-abdominal migration of intrauterine devices is a rare but serious complication. We report a clinical case of intra-abdominal migration of an intrauterine device in a 39-year-old woman without any notable medical history, which required laparoscopic diagnosis and treatment.

KEYWORDS: Uterine Perforation, Abdominal Cavity, Laparoscopy

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INTRODUCTION

The intrauterine device (IUD) is a simple, effective, well-tolerated, and inexpensive long-acting contraceptive device for which observance is not an issue. However, its associated complications must be understood in order to optimize its effects. Uterine perforation is one of its rarest complications, occurring in 1.3 to 1.6 out of every 1,000 insertions [1]. It is also one of the most serious complications, potentially resulting in migration of the IUD to neighboring organs, such as the mesentery, colon, and bladder. We report a case of migration of the IUD into the peritoneal cavity, which was diagnosed 1 month after insertion during an exploration for left iliac fossa pain. X-rays and a CT scan were used to obtain the diagnosis, which was confirmed by laparoscopic examination. The device was extracted laparoscopically without harming the digestive tube.

CASE REPORT

A 39-year-old woman who presented with left-sided iliac fossa pain without other signs. She had a history of IUD placement one month beforehand. After discarding the possibility of pregnancy, the patient received an abdominal X-ray without preparation, which showed the intra-abdominal location of the T-shaped device (Figure 1). A pelvic ultrasound had not found the device within the uterus, and an abdominal CT found it partially encrusted in the wall of the sigmoid colon (Figures 2 and 3). The patient was diagnosed with intra-abdominal migration of the IUD and secondary perforation of the uterus. Laparoscopy was indicated, which confirmed that the device was attached to the wall of the sigmoid colon without having perforated it. The device was successfully extracted, with no resulting damage (Figure 4). The postoperative period was complication-free.

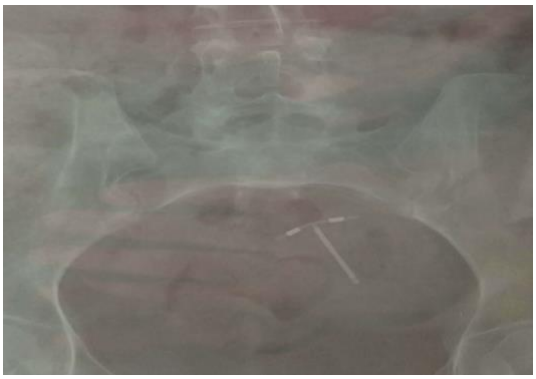

Figure 1 : Abdominal X-ray without preparation, showing the T-shaped IUD.

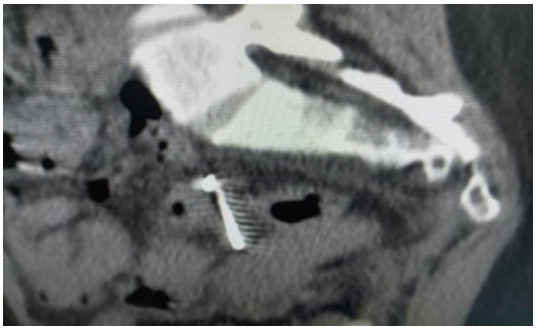

Figure 2 : CT image of an intra-abdominal IUD.

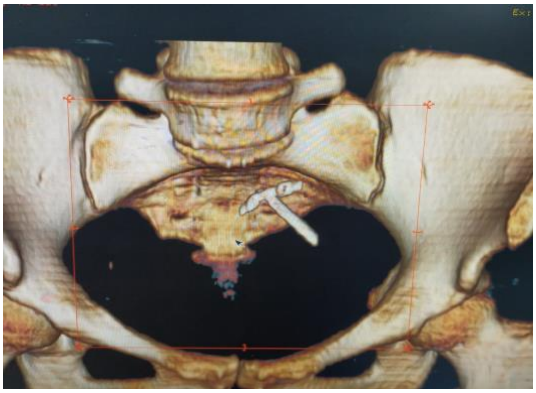

Figure 3 : 3-D CT image of an IUD.

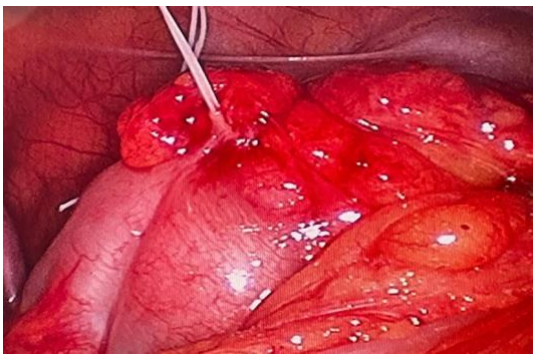

Figure 4 : Surgical image of the extraction of the IUD

DISCUSSION

IUD insertion is a simple medical procedure that requires a minimal amount of medical knowledge or practice. However, in some situations, complications, including infection, uterine perforation [2, 3], and the rare complication of migration towards other abdominal or pelvic structures [4], may occur. Perforations may be partial, in which only a part of the IUD pierces the uterine wall or cervix, or complete, where the device crosses the uterine wall and penetrates the abdominal cavity [5]. These may occur immediately after placement or after a delay due to the progressive erosion of the uterine wall caused by inflammatory effects of the IUD.

Placement after abortion or in the postpartum period increases the probability of migration, as do multiparity, uterine scarring, uterine malposition, uterine tuberculosis, or operator inexperience or awkwardness [6]. It is therefore important to verify good placement and positioning of the IUD after it has been inserted. Symptoms of IUD migration are diverse and varied, ranging from subsequent unwanted pregnancy [7] to irritating signs during micturition [8], chronic pelvic pain, acute peritonitis, and fistulae and abscesses at the site of the penetrated organs.

Ultrasound and plain X-rays can be used to diagnose the presence of echogenic and radio-opaque foreign bodies, respectively. CT is a useful imaging tool, which, in our case, allowed us to confirm the location of the IUD [4].

Current recommendations are for minimally invasive extractions, which we followed [9]. Most authors believe that removal of an intrauterine device is mandatory, given the risk of GI complications. IUD extraction is most commonly performed through laparoscopy. The literature gives success rates for this procedure of between 44% and 100% [10], depending on the number of treated cases, the location of the IUD, and operator experience. Laparotomy is not a rare requirement [11], so it is fundamentally important to warn patients about the risk of converting from laparoscopic surgery to open surgery and the possibility of digestive resection. Fluoroscopy may be useful in cases where it is difficult to locate the IUD during the operation. The Trendelenburg position is not recommended by some authors during laparoscopy due to the possibility of secondary migration of the IUD [12].

CONCLUSION

The intrauterine device is an efficient form of contraception, and insertion is a simple medical procedure requiring a minimal amount of knowledge and experience. Perforation is one of its rarer and more serious complications. Laparoscopy is still the most efficacious diagnostic and therapeutic procedure in these cases.

PATIENT CONSENT

Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

AUTHORS' CONTRIBUTIONS

The participation of each author corresponds to the criteria of authorship and contributorship emphasized in the Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals of the International Committee of Medical Journal Editors. Indeed, all the authors have actively participated in the redaction, the revision of the manuscript, and provided approval for this final revised version.

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