

## CASE REPORT: RETRIEVAL OF AN INTRA-UTERINE CONTRACEPTIVE DEVICE PENETRATING THROUGH THE WALL OF THE RECTUM

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### ABSTRACT

**A Copper T intrauterine contraceptive device (IUCD) is a commonly employed method of reversible contraception for women. Its use has been associated with complications such as bleeding, perforation and migration to adjacent organs or peritoneum.**

**Uterine wall erosion and subsequent perforation by an IUCD is not unusual; however the subsequent intraperitoneal migration, to and perforation of the rectum is uncommon. We present a case of 31-year-old female with an IUCD migrating through the uterus possibly into the peritoneal cavity and subsequently eroding into the posterior rectal wall. It was removed easily without complications through the rectum during an examination under anesthesia.**

**Keywords:** Intrauterine contraceptive device, perforation, migration, rectum.

### INTRODUCTION

Intrauterine contraception as a form of contraception is a popular choice amongst women seeking long-term pregnancy prevention. The intrauterine contraceptive devices (IUCDs) are safe and highly effective reversible contraceptives that are also economical<sup>1,2</sup>. Complications like displacement, embedment, expulsion and perforation are often associated with malpositioning of IUCD but mishaps can also occur despite proper placement and positioning<sup>3-6</sup>. About 18% of IUCD users may experience expulsion and missing strings, however uterine erosion/perforation is an uncommon, but serious, complication<sup>3</sup>. Perforation may be asymptomatic or symptomatic. There could be varying symptoms like abdominal pain, chronic pelvic pain, abnormal vaginal or rectal bleeding, irritative lower urinary tract symptoms, bowel or bladder perforation, peritonitis, unwanted pregnancy, intestinal obstruction, abscess or fistula formation depending on the organ of penetration and the interval from the time of penetration and patient's response<sup>3-5</sup>. Here, we report a case of an IUCD migrating through the uterus into the peritoneal cavity and uninterrupted into the rectum.

### Case Profile

Mrs. A.O a 31-year-old Para 2+<sup>0</sup> (2 Alive) woman had an uncomplicated IUCD (Copper-T 380A) inserted and subsequently, could not feel the strings within 1 week of its insertion. There was no history of abdominal pain or abnormal vaginal or rectal bleeding. However, she did not present in the hospital

despite the pre and post insertion counseling given to her. Three months after the IUCD insertion she missed her period. Ultrasound done confirmed a 9weeks live gestation and showed a displaced IUCD in the uterine wall. She was counseled on the complications of pregnancy with IUCD in-situ and it was planned for removal after delivery. Pregnancy was otherwise uneventful until late third trimester when she had premature labour and delivery of a live male neonate at 35 weeks gestational age. She did not present in the hospital after delivery as scheduled because of the fear of surgery until 3 months postpartum when she noticed the IUCD strings protruding from her anus (Fig. 1).



**Fig 1:** The string of the IUCD protruding from the anus



**Fig 2:** Plain abdominal x-ray with arrow pointing to the copper T device

There was no accompanying abdominal pain, change in her bowel habit (constipation, diarrhoea), hematochezia, anal pain or swelling. During the pelvic examination, about 4cm length of the IUCD strings was visible at the anal orifice. Pelvic ultrasonography showed a morphologically normal sized uterus with the IUCD located outside the uterus, possibly in the rectum. An abdominal X-ray confirmed the presence of the IUCD in the pelvis posterior to the uterus (Fig.2). The patient was counseled on the need to undergo an examination under anaesthesia with removal of IUCD. She had rectal washouts and an informed consent was



**Fig 3:** IUCD with the digitally prolapsed rectum

obtained. The procedure was planned along with the general surgeons. At examination, the T-junction of the IUCD was found embedded in the posterior rectal wall about 4cm from the anal verge (Fig 3). The IUCD was removed under direct vision, by slightly pulling on the strings, after digital prolapse of the rectum. There was a pin-hole dimple after removal that was not bleeding. The patient had a smooth postoperative recovery. She opted for a contraceptive implant in view of her desire to space her children and plan her family size.

## DISCUSSION

Uterine perforation is one of the most serious complications associated with IUCDs. Many women with a perforated/translocated IUCD are asymptomatic, with over 30% of perforations recognized only when pregnancy occurs<sup>6</sup>. Occasionally, an intraperitoneal IUCD may remain undetected for months or years if patient remains asymptomatic, however if symptomatic the translocated IUCD is removed to relieve abdominal or pelvic pain or bleeding<sup>6</sup>. According to World Health Organizations recommendation any translocated IUCD following uterine perforation within the abdomen should be removed whether symptomatic or asymptomatic irrespective of the location<sup>7</sup>. Perforation of the uterus by an IUCD may result in the device migrating into adjoining structures such as the urinary bladder, bowel, rectum, omentum and retroperitoneum.<sup>3-5,7</sup> IUCD migration is affected by timing of insertion (particularly during the puerperium), uterine size, position, congenital uterine anomalies and previous pelvic surgery.<sup>3,8</sup> Therefore it is imperative that health professionals are aware of all these as well as its complication and management.<sup>3</sup>

In addition, migration of IUCD occurs more in women who undergo labour with their IUCD In-situ and in the puerperal period due to the effect of hypo estrogenic state that causes uterine size reduction and uterine wall thinning, predisposing the uterus to perforation.<sup>8</sup> Most likely this could have made the uterus susceptible to perforation in the case presented.

Studies suggest that up to 15% of perforated IUCDs may cause injury to surrounding organs, most frequently the bowel.<sup>9</sup> IUCD-related intestinal perforations primarily involve the sigmoid colon, followed by the small intestine and rectum and could be partially or completely embedded in the bowel wall.<sup>9</sup>

In the past, laparotomy was often performed for IUCD retrieval because of the concerns of extensive adhesive disease however laparoscopy has now been proven to be effective and safe and it is advised to use the most appropriate minimal invasive techniques<sup>10</sup>.It

is important to perform a rectal examination during evaluation for a case of lost IUCD and if found to be in the rectum there is a strong possibility of safe retrieval through the rectal route even when it is embedded in the rectal wall without a need for laparoscopy or laparotomy<sup>11</sup> such as was done in this case.

## CONCLUSION

IUCDs are a safe and effective form of long-acting reversible contraception; however, asymptomatic migration of IUCD to the rectum can occur. In the case of a missing IUCD, it is important to perform a rectal examination along with other investigations and if embedded in the rectal wall it could be safely retrieved through the rectal route without complications especially in the low resource settings with limited availability of laparoscopy.

**Conflict of Interests:** The authors have no conflicts of interest.

## REFERENCES

1. **Mosher WD**, Jones J. Use of contraception in the United States: 1982-2008. *Vital Health Stat* 23. 2010 Aug. 1-44
2. **Peipert JF**, Zhao Q, Allsworth JE, *et al.* Continuation and satisfaction of reversible contraception. *Obstet Gynecol.* 2011 May. 117(5): 1105-1113.
3. **Kho KA**, Chamsy DJ. Perforated intraperitoneal intrauterine contraceptive devices: diagnosis, management, and clinical outcomes. *J Minim Invasive Gynecol.* 2014;21(4):596-601.
4. **Huertas-Velasco MA**, Gómez-Rubio M, “Endoscopic removal of intrauterine device penetrated through the rectal wall,” *Revista Espanola de Enfermedades Digestivas*, 2012; 104 (8): 432–433.
5. **Shin DG**, Kim TN, Lee W. “Intrauterine device embedded into the bladder wall with stone formation: laparoscopic removal is a minimally invasive alternative to open surgery,” *International Urogynecology Journal*, 2012;23(8):1129–1131.
6. **Caliskan E**, Ozturk N, Dilbaz BO, Dilbaz S. Analysis of risk factors associated with uterine perforation by intrauterine devices. *Eur J ContraceptReprod Health Care*2003; 8(3):150-155.
7. World Health Organization (WHO), “Mechanism of action, safety and efficacy of intrauterine devices,” WHO Technical Report 1987;753:1–91
8. **Weerasekera A**, Wijesinghe P, Nugaduwa N. Sigmoid colocolic fistula caused by intrauterine device migration: a case report. *J Med Case Rep.* 2014; 8:81.
9. **Arslan A**, Kanat-Pektas M, Yesilyurt H. Bilge U. Colon penetration by a copper-intrauterine device: a case report with literature review. *Arch Gynecol Obstet.*2009; 279(3):395-397.
10. **MosleyFR**, ShahiN,KurerMA, “Elective surgical removal of migrated intrauterine contraceptive devices from within the peritoneal cavity: a comparison between open and laparoscopic removal,” *Journal of the Society of Laparoscopic Surgeons*, 2012;16(2): 236–241
11. **Banerjee N**, Kriplani A, Roy KK, *et al.*, “Retrieval of Lost Copper-T from the Rectum.” *Eur J ObstetGynecolReprod Biol.* 1998 Aug; 79(2):211-212.