

CASE REPORT

Family Planning and Contraception

Laparoscopic retrieval of a misplaced intrauterine contraceptive device translocated into the transverse colon and bladder: A case report

Everett Lwamulungi^{1*}, Flora Kalimi¹, Josephine Muthengi¹, Philomena Owende^{1,2}, Elly Odongo³

¹Department of Obstetrics and Gynecology, University of Nairobi, Nairobi, Kenya

²Department of Obstetrics and Gynecology, Kenyatta National Hospital, Nairobi, Kenya

³Department of Obstetrics and Gynecology, Kenyatta University, Nairobi, Kenya

*Correspondence: lwerett@gmail.com

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Abstract

Background: Intrauterine contraceptive device (IUCD) translocation is a rare but severe complication that can present challenges in patient identification, diagnosis, and management.

Case presentation: A 37-year-old para 3+0 presented to the gynecology clinic with a 12-year history of right inguinal pain. Pelvic ultrasound and lumbosacral x-ray showed a radiopaque foreign body in the pelvic cavity. Initial laparoscopic retrieval attempts had been unsuccessful, and she was scheduled for a repeat attempt. Intraoperatively, a hysteroscopy showed a normal endometrial cavity and normal ostia bilaterally with no IUCD visualization. On laparoscopy, the

IUCD was located within a thick adhesion band connecting the transverse colon to the urinary bladder. Adhesiolysis was performed, and the IUCD was retrieved.

Conclusion: IUCD translocation can be prevented by proper insertion techniques and placement confirmation. When translocation is suspected, diagnostic imaging modalities are essential, and surgical removal by a multidisciplinary may be required.

Keywords: bladder, colon, laparoscopy, misplaced IUCD, translocated IUCD

Introduction

Intrauterine contraceptive device (IUCD) are long-term reversible contraceptives usually provided by primary health care providers (1). It is the most widely used contraceptive method worldwide and has few contraindications according to the World Health Organization's medical eligibility criteria for contraceptive use (2). IUCDs types are hormonal and non-hormonal, with the duration of use varying from 5 to 10 years. It is, nonetheless, associated with rare but severe complications like bleeding, perforation, and migration to adjacent organs such as the intestines, bladder, and

omentum (1). Patients with a translocated IUCD may present with lost strings, lower abdominal pains, heavy menstrual bleeding, and pregnancy. It may, however, remain asymptomatic for several years. The diagnosis of a translocated IUCD can be made with a pelvic ultrasound scan or an abdominal radiograph (3). Management usually involves surgical removal, which may be by laparotomy, laparoscopy, or cystoscopy (4,5). This is a case of a patient with a translocated IUCD that was embedded in the transverse colon and urinary bladder and was diagnosed 12 years after insertion.

Case presentation

A 37-year-old para 3+0 presented to the gynecology clinic at Kenyatta National Hospital (KNH) with a 12-year history of right inguinal pain. The pain was sharp, intermittent, and radiated to the right lower limb with associated numbness. She had no per vaginal discharge history. The pain started immediately following IUCD insertion at a local dispensary. She reported to the same dispensary a week after the insertion to have the IUCD removed, but the strings could not be visualized. An ultrasound done at the time was normal. She was reassured that the IUCD had probably been expelled and sent home on analgesics. Nevertheless, the pain persisted, and she presented to the hospital severally being managed for lower back pain with analgesics and physiotherapy. During this period, she conceived, carried the pregnancy to term, and was delivered vaginally.

One year before presentation at KNH, the pain in the right inguinal region worsened. A lumbosacral x-ray at a peripheral facility showed a radiopaque foreign body in the pelvic cavity. Pelvic ultrasound revealed IUCD in the right adnexa. Laparoscopy was performed at another facility, but the IUCD was not traced. A repeat pelvic ultrasound after the laparoscopy revealed a foreign body in the pouch of Douglas (Figure 1). Consequently, she was discharged home on analgesics and antibiotics and advised on laparoscopy under imaging. She was relieved temporarily, although the symptoms recurred. Her symptoms had exacerbated in the three months before her current presentation.

On admission, vital signs were normal. She was found to have tenderness in the right inguinal region. A speculum examination was unremarkable. A bimanual examination revealed an anteverted uterus of normal size. The flexion of the right hip joint was limited due to the pain. Muscle bulk and reflexes of all muscle groups of lower limbs were normal. She had a normal pelvic ultrasound, and a lumbosacral x-ray revealed a radiopaque foreign body around the right sacroiliac joint (Figure 2). Her hemogram, urea, electrolytes, and creatinine tests were within the normal reference ranges. She was managed with analgesics and was scheduled for laparoscopic retrieval. She was placed under general anesthesia and in a low lithotomy-reversed Trendelenburg position, hysteroscopy showed a normal endometrial cavity and normal ostia bilaterally. The IUCD was not visualized in the uterine cavity. During laparoscopy, a thick adhesion band was found connecting the transverse colon to the urinary bladder. The IUCD was within this adhesion band and partly embedded in the bladder and the transverse colon. Adhesiolysis was performed and

the foreign body was removed (Figure 3). During removal, the IUCD was covered with fecal matter. On further examination, it was noted that the transverse colon and the dome of the bladder were perforated (Figure 4,5), with the urine bag being fully inflated (Figure 6). General surgery and urology teams were consulted about the injuries. Exploratory laparotomy was performed, and a 3cm perforation was identified at the dome of the bladder that was repaired in two layers. Thermal injury to the transverse colon was also noted, with minor lacerations involving the serosa. Wedge resection and primary anastomosis in two layers were performed. Peritoneal lavage was performed, and the abdominal cavity was closed in layers. The patient recovered well postoperatively and was discharged on the fifth postoperative day. She was reviewed two weeks postoperatively with complete resolution of her symptoms.

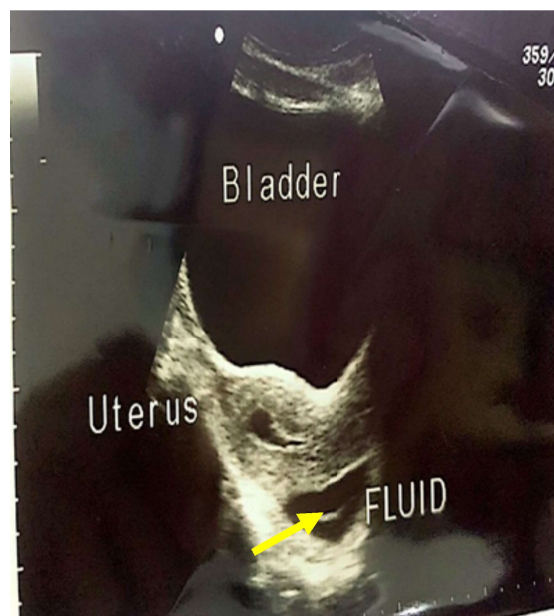


Figure 1: Transabdominal pelvic ultrasound scan revealed an intrauterine copper device (IUCD) (arrow) in the pouch of Douglas.

Discussion

Extrauterine IUCD translocation is a rare complication with a reported incidence of about 0.5-1 in 1000 insertions (6). The mechanism of uterine perforation may be immediate traumatic transmigration at the time of insertion or gradual erosion through the endometrium (4,6). The risk factors for perforation include insertion by less experienced clinicians, lactation, delayed postpartum insertion after 48 hours, low parity, and a high number of abortions (6). Immediate postpartum insertion has been associated with fewer incidences of IUCD translocation due to the thick uterine walls and is highly convenient and

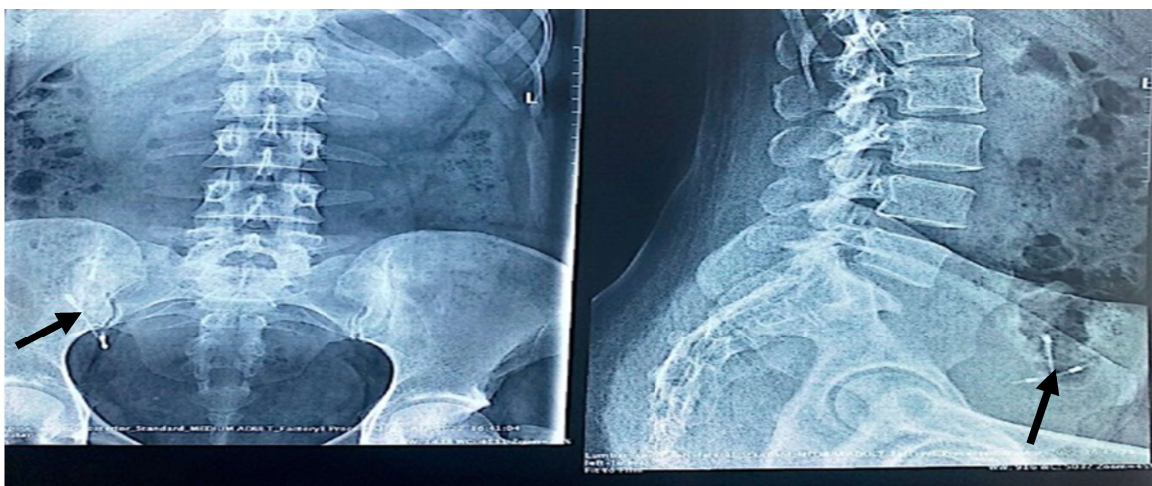


Figure 2: Lumbosacral radiograph showing IUCD (arrows) near the right sacroiliac joint.

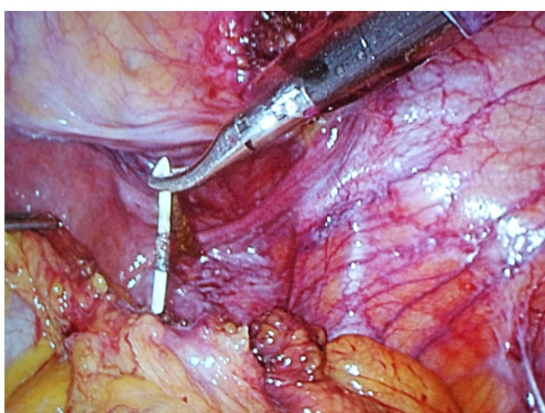


Figure 3: An IUCD (arrow) covered with fecal matter.

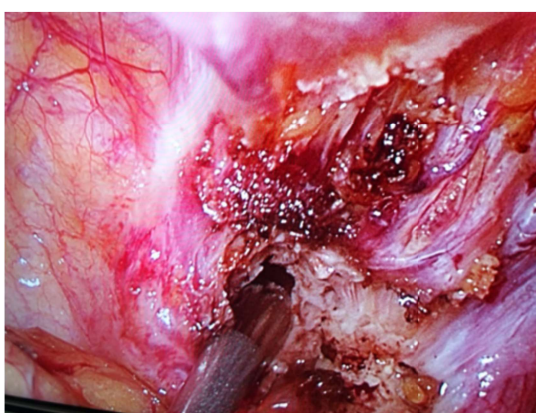


Figure 4: Perforated bladder (arrow) with a probe *in situ*.

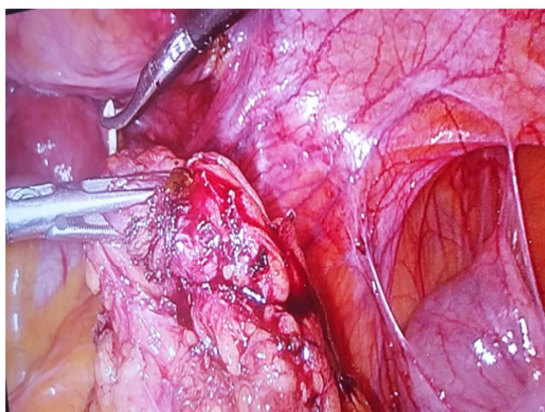


Figure 6: Area of fecal matter spillage (arrow) in the transverse colon.



Figure 5: Inflated urine bag.

safe (7). Here, the IUCD was inserted by a primary healthcare provider. The patient was also nine months postpartum and was lactating at the time. Lactation has a positive association with perforation although a causal relationship has not been established (6). She also reported feeling pain after the insertion. She presented to the healthcare facility a week later for removal, but the healthcare worker could not visualize the IUCD strings and

assumed it had been expelled. This should have raised the suspicion of a misplaced IUCD. This emphasizes the importance of radiological evaluation of women in whom IUCD strings are not visualized following insertion (8).

An initial transabdominal ultrasound did not visualize the misplaced IUCD, but a plain radiograph subsequently localized it. This demonstrates the importance of an abdominal

radiograph in patients with a translocated IUCD not located on ultrasonography (8). Various migration locations have been reported in the literature, including the urinary bladder, appendix, omentum, rectum, small bowel, anterior abdominal wall, and ovaries (4). Here, the IUCD was embedded in the transverse colon and the urinary bladder. The removal of an IUCD in the bowel may require resectioning a portion of the bowel, as was necessary in this case. It may also be removed per rectum by proctoscopy or colonoscopy in cases where devices traverse the entire lumen of the intestines (2). IUCD perforation into the urinary tract may be associated with the formation of calculus and vesicouterine fistula. IUCDs associated with calculus may be removed cystoscopically (9). During the removal of the IUCD, an iatrogenic bladder injury occurred, which was repaired by a urologist. This underpins the importance of having a multidisciplinary approach, especially when preparing for the surgical removal of translocated IUCDs.

Conclusion

Proper insertion techniques and placement confirmation can prevent IUCD translocation. This, in turn, reduces risk to the patient, potential litigation, and the stigma associated with this contraceptive method. When translocation is suspected, diagnostic imaging modalities like ultrasonography complemented with plain radiography are essential. Surgical removal by a multidisciplinary team is recommended, especially when the involvement of other abdominal viscera is anticipated.

Consent for publication

Informed consent for publication was obtained from the patient.

Declarations

Conflict of interests

The authors declare no conflicts of interest.

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