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Asymptomatic Intrauterine Device Migration with Rectal Perforation and Tubo-Ovarian Abscess: A Rare Case Presentation

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Abstract: Intrauterine devices (IUDs) are widely used contraceptives. Migration or uterine perforation should always be suspected in cases of gynecologic infections. These rare complications can lead to serious problems in adjacent organs (1,2). We report a case of a 32-year-old woman, gravida 2 para 2, who presented for routine IUD follow-up with mild right iliac fossa discomfort. She had a copper IUD inserted two years earlier, with regular follow-up and no prior symptoms. Pelvic ultrasound revealed IUD migration associated with a right tubo-ovarian abscess, and a subsequent CT scan identified rectal perforation. The patient underwent successful laparoscopic management by a multidisciplinary team, including rectal and uterine repair and abscess drainage. The postoperative course was uneventful. This case highlights the importance of considering IUD migration in patients presenting with abdominal pain, even after long asymptomatic periods (3,4).

Keywords: *Intrauterine Device (IUD), Migration, Tubo-Ovarian Abscess, Rectal Perforation, Laparoscopy.*

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I. INTRODUCTION

Intrauterine devices (IUDs) are long-term reversible contraceptives widely used due to their safety, reversibility, and effectiveness (5,6). Rare complications, such as pelvic inflammatory disease (PID), uterine perforation, and device migration, may occur, particularly at the time of insertion (1,2,5). These complications can remain asymptomatic for years and may only be detected when organ perforation or abscess formation occurs (7,8). This report presents a rare case of rectal perforation and tubo-ovarian abscess caused by a migrated copper IUD, successfully managed via laparoscopic surgery.

II. CASE PRESENTATION

A 32-year-old woman, gravida 2 para 2, presented for a **routine IUD follow-up**. She reported **mild discomfort in the right iliac fossa** but denied fever, gastrointestinal symptoms, or abnormal vaginal discharge. A copper IUD had been inserted two years prior, and she had attended regular six-month follow-up visits with no previous complaints (3).

On examination, she was afebrile and hemodynamically stable. Abdominal palpation revealed **mild tenderness in the right iliac fossa**. Pelvic examination did not reveal IUD strings. Laboratory tests showed mild inflammatory markers.

Pelvic ultrasound demonstrated a complex right adnexal mass, raising suspicion for a tubo-ovarian abscess,

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with the IUD not visualized within the uterine cavity. CT scan confirmed extrauterine migration of the copper IUD, with the stem perforating the anterior rectal wall without fecal leakage (2,3). The horizontal arms of the IUD remained partially embedded in the uterine wall.

➢ *Surgical Management*

The patient underwent **laparoscopic exploration** performed by a multidisciplinary team, including gynecologists and visceral surgeons. Intraoperative findings included:

- A frozen pelvis with dense utero-rectal adhesions (4).
- Dense adhesions between the sigmoid colon and right adnexa.
- A right tubo-ovarian abscess presenting as a tense, fluctuant mass.
- The stem of the IUD perforating the rectum, without leakage of bowel contents (6).
- The horizontal arms of the IUD embedded in the uterine wall.

Visceral surgeons performed laparoscopic rectal repair with Vicryl 3/0 and carefully extracted the IUD stem. The perforated area was reinforced with simple laparoscopic sutures to preserve intestinal lumen integrity. Subsequently, the gynecological team repaired the uterine perforation laparoscopically and drained the tubo-ovarian abscess. Hemostasis was maintained throughout the procedure (3,4,7).

➢ *Outcome and Follow-up*

The patient's postoperative course was uneventful. She received broad-spectrum antibiotics and was closely monitored. She was discharged without complications and scheduled for outpatient follow-up (3,5).

III. DISCUSSION

Uterine perforation with IUD migration occurs in approximately 1–2 per 1,000 insertions, often due to unrecognized trauma at the time of insertion (1,2,5). Risk factors include recent childbirth, breastfeeding, or a retroverted uterus; however, this patient had no identifiable risk factors and remained asymptomatic for two years (4,6).

Rectal perforation is exceedingly rare and may remain unnoticed due to absence of digestive symptoms (3,6). In this case, the IUD stem perforated the anterior rectal wall without fecal spillage or peritonitis, highlighting the importance of early imaging for diagnosis (2,7). Ultrasound effectively detected the adnexal mass and displaced IUD, while CT confirmed the extent of injury (3,4).

Laparoscopic exploration by a multidisciplinary team allowed safe removal of the IUD, repair of rectal and uterine perforations, and drainage of the abscess. Minimally invasive management facilitated faster recovery, reduced postoperative pain, and minimized adhesion formation compared to open surgery (5,7,8).

IV. CONCLUSION

This case illustrates a rare but serious complication of copper IUD migration leading to rectal perforation and tubo-ovarian abscess in an asymptomatic woman. It emphasizes the importance of imaging in patients with pelvic pain and a history of IUD insertion. Prompt laparoscopic intervention is feasible and effective for managing such complex cases, preventing long-term morbidity (3,4,5,7).

➢ *Figure Legends*

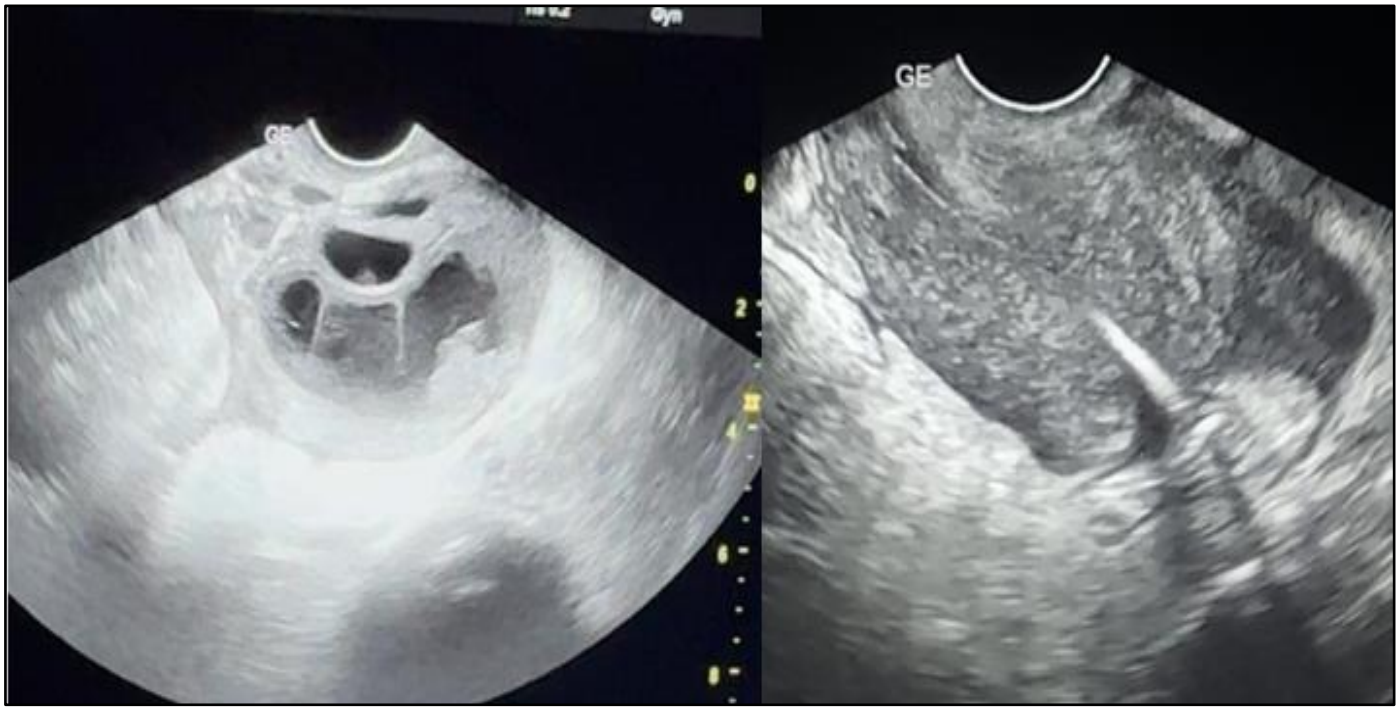

Fig 1 Pelvic Ultrasound Showing a Complex Right Adnexal Mass, Suggestive of a Tubo-Ovarian Abscess. The IUD is not Visualized Within the Uterine Cavity (2).

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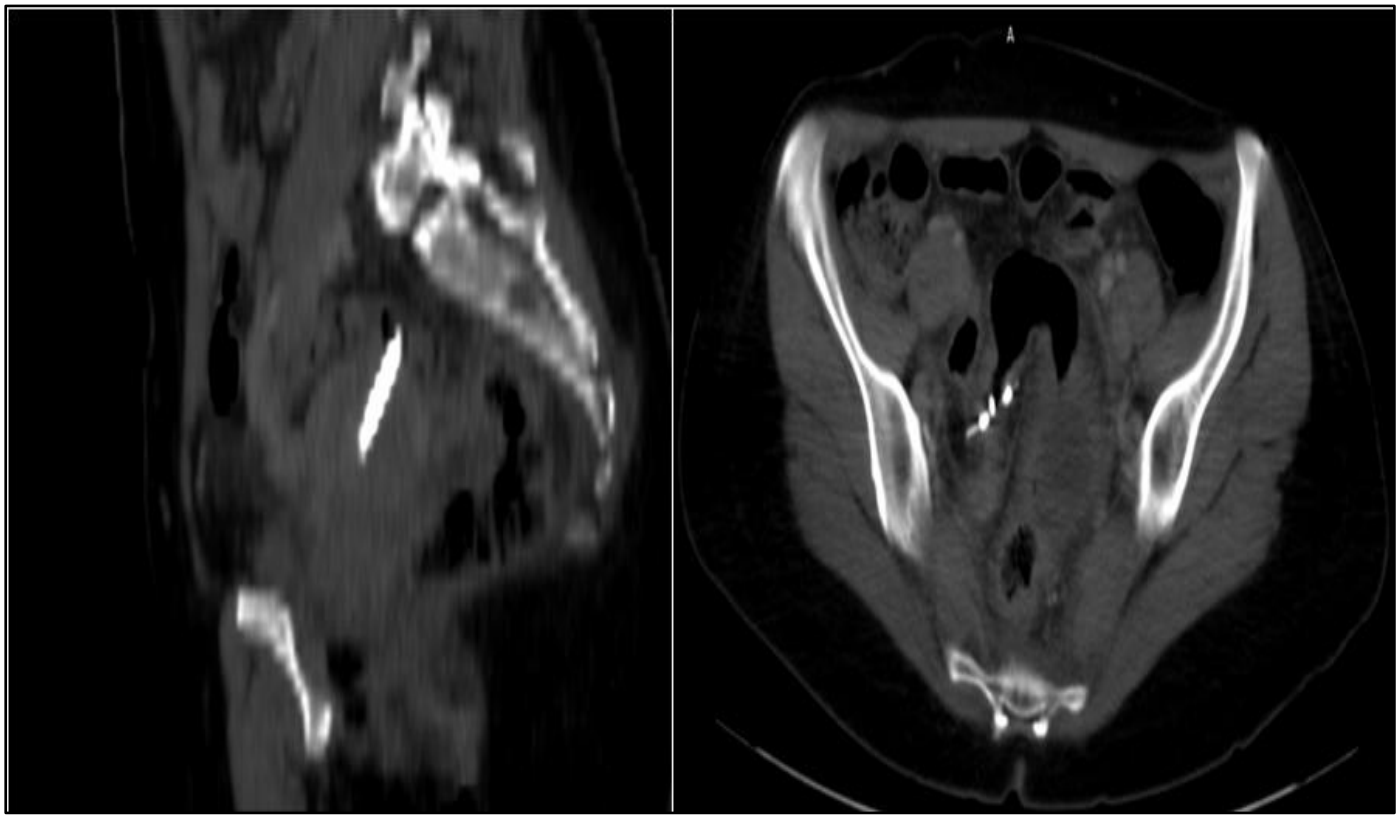

Fig 2 Sagittal and Longitudinal CT Scan Images Showing Extrauterine Migration of the IUD. The Stem Perforates the Anterior Rectal Wall Without Fecal Leakage (3).

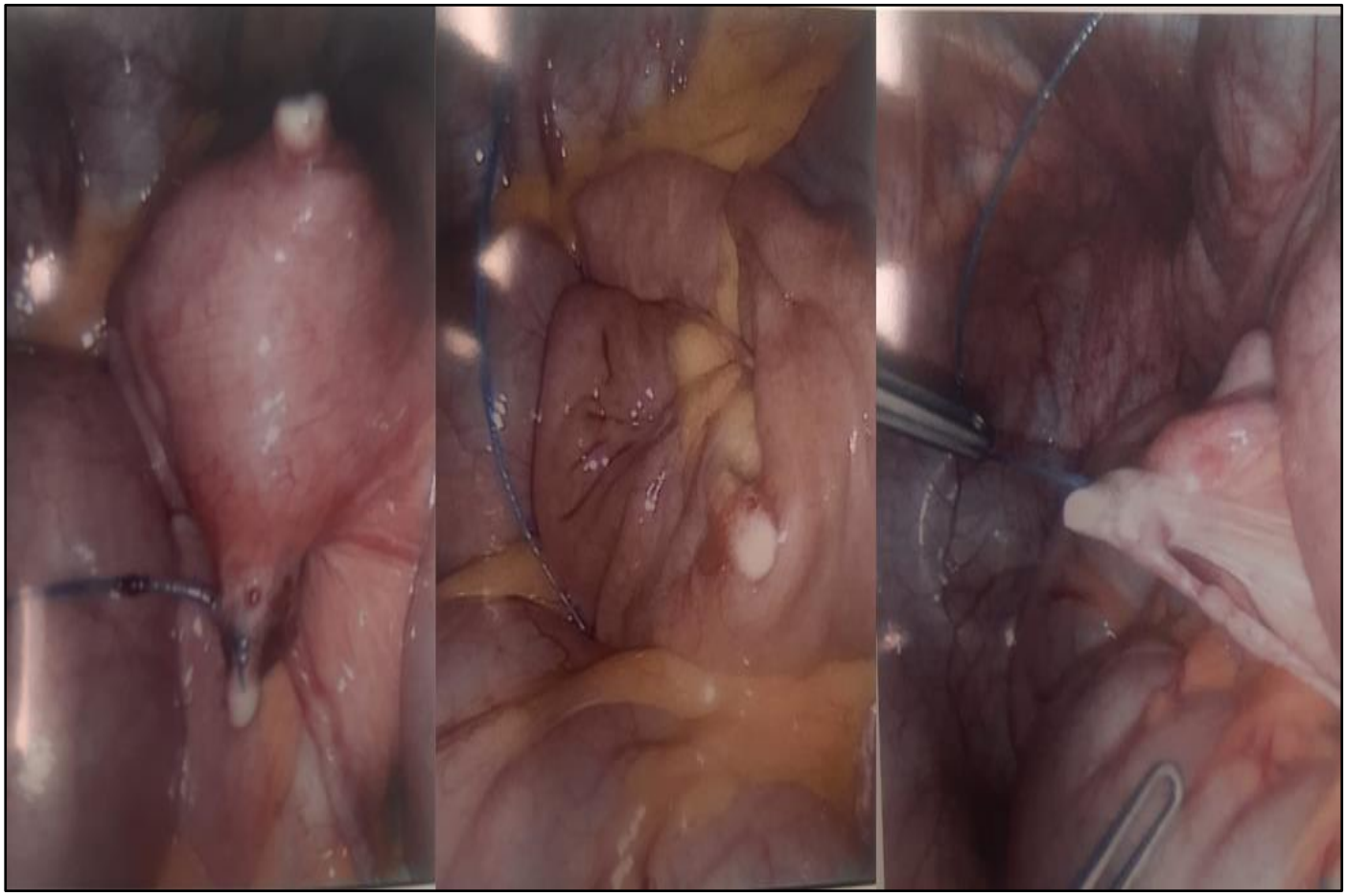

Fig 3 Laparoscopic View of the IUD Stem Perforating the Rectum During Surgery (4).

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➢ *Ethical Approval*

Ethics approval has been obtained to proceed with the current study.

➢ *Funding*

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➢ *Author Contribution*

Hassnaa Sarhane[1]; Kaoutar Bahida[2]; Nouhaila Yartaouii[3]; Fatima Zahra Belouaza[4]; Mouhamed Balouch[5]; kaid mouhamed[6]; Manuscript editing, picture editing, data analysis and interpretation, paper writing.

Nissrine BENOUICHA, Aziz BAIDADA : literature review, supervision.

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[17]. DISCUSSION Transmigration of IUCD, a rare catastrophic complication of IUCD insertion, usually occurs at the time of insertion, as might have happened with our case since the lady was not able to...

[18]. Pelvic abscess complicating sigmoid colon perforation by migrating intrauterine device: A case report and review of the literature – PMC.