

Migrated Copper-T Embedded In The Transverse Colon : A Rare Case Report**Ganesh Tondge¹, Vaishnavi Lohokare², Nandkishor More³**¹Professor & HOD, Department of Obstetrics and Gynaecology, SRTR GMC, Ambajogai, Maharashtra.²Junior Resident-3, Department of Obstetrics and Gynaecology, SRTR GMC, Ambajogai, Maharashtra.⁶Associate Professor, Department of Obstetrics and Gynaecology, SRTR GMC, Ambajogai, Maharashtra.

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Corresponding author: Dr. Vaishnavi Lohokare

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Abstract**Background:** Copper-T intrauterine contraceptive devices (IUCDs) are safe and effective; however, uterine perforation with extrauterine migration is a rare complication. Migration into the bowel is exceptionally uncommon.**Case Presentation:** A 42-year-old multiparous woman presented with lower abdominal pain and missing Copper-T strings. Ultrasonography failed to locate the IUCD, while computed tomography identified a migrated Copper-T adjacent to bowel loops. Diagnostic laparoscopy was converted to exploratory laparotomy because of dense adhesions. The device was found embedded in the transverse colon and was left in situ, as removal posed a greater surgical risk.**Conclusion:** Transverse colonic migration of a Copper-T is extremely rare. Missing IUCD strings require prompt imaging, and individualized surgical management is essential to prevent complications.**Keywords:** Copper-T, Missing IUCD, Uterine perforation, Migration, Transverse colon, Case report.**DOI:** 10.25258/ijcpr.18.8.3

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Introduction

The intrauterine contraceptive device (IUCD) is one of the most effective long-acting reversible contraceptive methods because of its high efficacy, reversibility, affordability, and prolonged duration of action. The Copper-T 380A provides highly effective contraception for up to 10 years with a failure rate of less than 1% during the first year of use and is recommended by the World Health Organization as a safe, non-hormonal contraceptive option.[1] Although generally safe, IUCD insertion may occasionally result in complications, including abnormal uterine bleeding, pelvic pain, expulsion, pelvic inflammatory disease, and, rarely, uterine perforation with extrauterine migration. The reported incidence of uterine perforation ranges from 0.1 to 3 per 1,000 insertions, with higher risk during the postpartum period, lactation, or technically difficult insertions.[2] Following perforation, the device may migrate into adjacent pelvic or abdominal organs because of inflammatory reactions and visceral movement. Involvement of the gastrointestinal tract is uncommon, while migration into the transverse colon is exceptionally rare.[3] Patients may present with missing IUCD strings, chronic pelvic or abdominal pain, or remain asymptomatic, making

timely diagnosis challenging. Ultrasonography is the first-line imaging modality, whereas computed tomography (CT) is valuable for precise localization and preoperative assessment when extrauterine migration is suspected.[4] Surgical removal of migrated Copper-T devices is generally recommended to prevent chronic inflammation, adhesions, bowel injury, or fistula formation. Laparoscopic retrieval is preferred; however, laparotomy may be required in cases with dense adhesions or bowel involvement.[5] The present case highlights the importance of early evaluation of missing IUCD strings, appropriate radiological localization, and timely surgical intervention for this rare but potentially serious complication.

Case Presentation

A 42-year-old multiparous woman (P2L2) presented to the Department of Obstetrics and Gynaecology, Swami Ramanand Teerth Rural Government Medical College and Hospital, Ambajogai, with a four-month history of intermittent lower abdominal and lumbar pain and missing Copper-T IUCD strings. She had undergone a previous full-term vaginal delivery followed by tubal sterilization, and the Copper-T

had been inserted several years earlier without subsequent follow-up. General and pelvic examinations were unremarkable except for absent retrieval strings. Transabdominal ultrasonography demonstrated a normal-sized uterus and ovaries but failed to visualize the IUCD within the uterine cavity. An incidental simple left renal cortical cyst was noted, and computed tomography (CT) was performed for further localization of the migrated IUCD.



Figure 1: Dense Adhesions Around Migrated Copper-T



Figure 2: Copper-T Embedded in the Transverse Colon



Figure 3: Copper-T Beneath Colonic Serosa



Figure 4: Mobilization of the Transverse Colon Prior to Copper-T Retrieval

The patient presented with a four-month history of intermittent dull aching pain in the lower abdomen

and lumbar region without fever, gastrointestinal, urinary, or gynecological symptoms. Pelvic examination revealed absent Copper-T retrieval strings, while the uterus and adnexa were clinically normal. Routine laboratory investigations, including hemoglobin (11.8 g/dL), total leukocyte count ($7 \times 10^3/\text{mm}^3$), platelet count ($273 \times 10^3/\text{mm}^3$), HIV, and HBsAg, were within normal limits. Pelvic ultrasonography showed a normal-sized uterus with the IUCD absent from the uterine cavity and an incidental simple left renal cortical cyst. Non-contrast CT of the abdomen and pelvis localized the migrated Copper-T adjacent to bowel loops, confirming complete extrauterine migration without bowel perforation, obstruction, pneumoperitoneum, or abscess. Diagnostic laparoscopy was attempted but converted to exploratory laparotomy because of dense adhesions. The Copper-T was found embedded within the transverse colon with dense inflammatory adhesions and was left in situ as removal posed a greater surgical risk. The postoperative course was uneventful, and the patient recovered well with conservative postoperative management. Histopathological examination was not performed because no tissue specimen was obtained.

Discussion

The present case describes a rare complication of Copper-T IUCD use in which the device migrated through the uterine wall and became embedded in the transverse colon, an exceptionally uncommon site of gastrointestinal involvement. Uterine perforation may occur during insertion or develop gradually through secondary erosion, allowing migration into the peritoneal cavity where bowel peristalsis, omental movement, and the inflammatory reaction induced by copper contribute to adhesion formation and organ involvement.[6] Missing IUCD strings should never be assumed to represent spontaneous expulsion, as delayed diagnosis may result in bowel injury, fistula formation, or chronic pelvic complications. Previous reports have shown that migrated IUCDs involving the colon often present with nonspecific symptoms such as chronic pelvic pain or may remain asymptomatic, highlighting the need for early evaluation.[7] In the present case, ultrasonography confirmed the absence of the IUCD from the uterine cavity, while computed tomography accurately localized the device adjacent to the bowel, consistent with current evidence supporting CT as the most reliable modality for preoperative assessment of extrauterine IUCDs.[8] Although imaging did not demonstrate definite bowel perforation, surgery revealed dense adhesions with the Copper-T embedded in the transverse colon, emphasizing that significant tissue involvement may exist despite

limited radiological findings.[9] Diagnostic laparoscopy was initially attempted but converted to exploratory laparotomy because of extensive adhesions and bowel involvement. While laparoscopic retrieval remains the preferred approach, open surgery may be required when safe dissection is not feasible. Management should therefore be individualized according to intraoperative findings and the balance between surgical risks and benefits.[10] This case highlights the importance of prompt investigation of missing IUCD strings, appropriate radiological localization, multidisciplinary surgical planning, and individualized management to prevent serious complications associated with extrauterine Copper-T migration.

Conclusion

Migration of a Copper-T into the transverse colon is a rare but potentially serious complication. Missing IUCD strings should prompt timely imaging for accurate localization. Although laparoscopy is the preferred approach, laparotomy may be required in cases with dense adhesions or bowel involvement. This case underscores the importance of individualized surgical decision-making, multidisciplinary management, early diagnosis, and regular follow-up after IUCD insertion.

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