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*Case Report*

# Incidental Finding of Misplaced Cu-T Device: A Rare Case Report

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## ABSTRACT

Intrauterine contraceptive device (IUCD) is amongst the most commonly used methods of contraception because of its safety, economy, efficiency and reversibility. Uterine perforation and migration into the peritoneal cavity is one of its rare but serious complications. We are presenting a case report of 27 year old female, Para 5 Live issue 4, who reported to our hospital on postpartum day-18 with history of instrumentation in this delivery for removal of adherent placenta and membranes. She had ultrasonography report with her suggestive of uterine perforation and bowel obstruction. Cu-T was found incidentally on X-ray abdomen, which was done to rule out any bowel perforation or obstruction. Laparoscopy followed by laparotomy was done to remove the misplaced Cu-T.

***Key words:*** IUCD, uterine perforation, laparotomy.

## INTRODUCTION

Intrauterine contraceptive device is the mainstay of contraception in the developing countries despite its association with a number of health risks that although rare, can occur. IUCD problems include infection, abnormal uterine bleeding, ectopic pregnancy, and uterine perforation which necessitate surgical removal of the IUCD. Uterine perforation is the most serious complication of the IUCD, occurring in 1.6 per 1000 insertions. [1] Removal of misplaced IUCD may be done by hysteroscopy, laparoscopy or laparotomy.

## CASE REPORT

A 27-year-old Para 5 Live issue 4 with previous normal deliveries, who delivered eighteen days back presented to emergency department with complaint of lower abdominal pain, fever and vomiting for 3 days. Her bowel and bladder were regular. There was history of instrumentation in this delivery for removal of adherent placenta and membranes. Clinical examination revealed stable vital parameters and a soft abdomen with lower abdominal tenderness. Bowel sounds were present. On per speculum examination lochia was healthy and not foul smelling. Per vaginum examination revealed uterus of 10 weeks size and tenderness was present on per vaginum examination. She had ultrasonography report with her which was suggestive of rent in fund us of uterus and bowel obstruction. A provisional diagnosis of uterine perforation which had probably occurred during evacuation after delivery was made and patient was managed conservatively by injectable antibiotics as neither any clinical feature suggestive of peritonitis was present nor was there any collection reported on ultrasonography. X-ray abdomen erect and supine was done to

rule out any bowel perforation or obstruction. X-ray revealed a Cu-T in abdominal cavity and there was no feature suggestive of bowel perforation or obstruction. USG was suggestive of rent in fundus of uterus and Cu-T could not be visualized on USG even after finding it on X-ray. On further history taking it was found that patient had Cu-T inserted at district hospital by an auxiliary nurse midwife in lactation period 2 years back. The threads were not felt after 2 days. Patient reported back to the ANM but was counselled that the Cu-T might have been expelled. Since then patient was asymptomatic. A decision for elective laparoscopy/ laparotomy in view of misplaced IUCD after antibiotic coverage was taken. On laparoscopy, adhesions were present and bowel was found adhered to fundus of uterus with a fibrous band. However, Cu-T could not be visualized. On exploratory laparotomy Cu-T was seen embedded in the omentum on left side. Omentum was clamped, cut and ligated. Bowel was inspected. No bowel injury was seen. No uterine perforation was seen except for bowel adhered to fundus of uterus with a fibrous band which was left untouched. Post procedure period was uneventful. Patient was discharged on the 7$^{th}$ postoperative day.

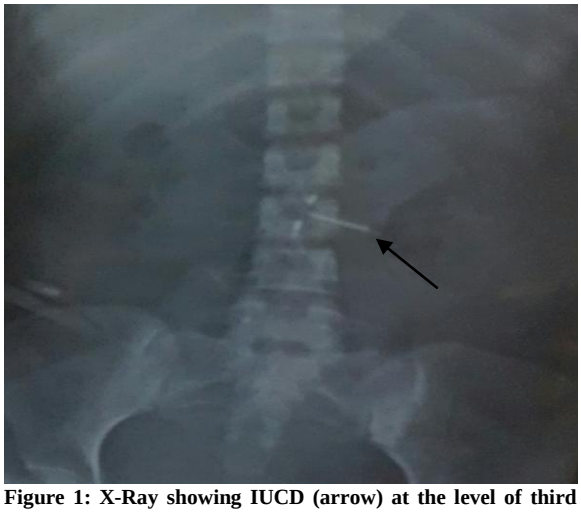

**Figure 1: X-Ray showing IUCD (arrow) at the level of third lumbar vertebrae**

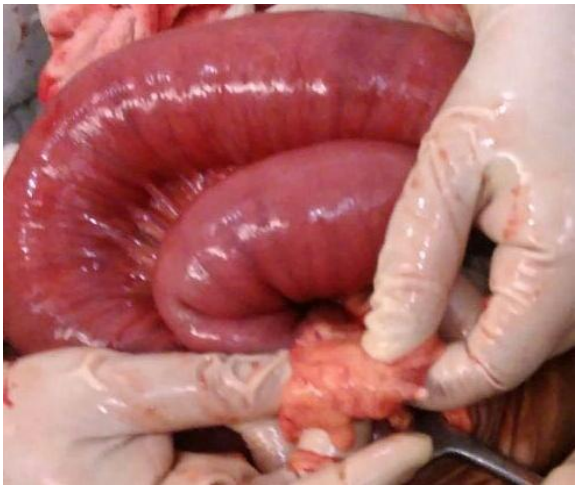

**Figure 2: Cu-T (arrow) is seen embedded in the omentum on laparotomy**

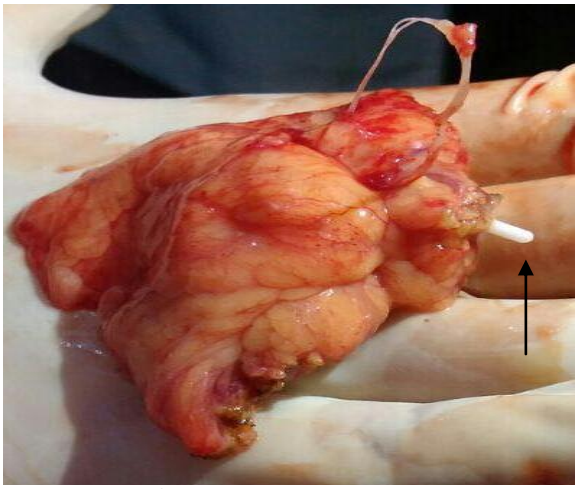

**Figure 3: Tail of the intrauterine device (arrow) protruding outside the omentum after removal**

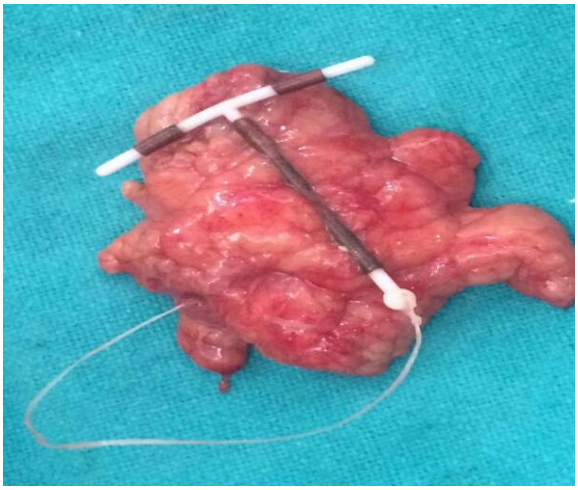

**Figure 4: Copper-T in the excised transected mass**

## DISCUSSION

IUCD is a safe, effective and reversible form of birth control available, with important advantages over other methods of contraception. The most serious

adverse event associated with its use is uterine perforation and migration of the device. Often there is silent perforation and the device is either detected after further sequelae or found incidentally by imaging. Factors influencing incidence of misplaced IUCD are parity, insertion time, previous abortions, type and method (push out insertion technique) of insertion technique, operator experience and position of uterus. Perforation is thought to occur either at the time of insertion or due to chronic inflammatory reaction to copper containing foreign body leading to gradual erosion through the uterine wall. Perforation during lactation period could be due to thinning of uterine wall due to hypoestrogenic state. Sharp pain at the time of insertion, disappearance of IUCD thread and post procedure bleeding are suggestive of perforation.

A translocated IUCD induces a dense fibroblastic reaction [2] which is the usual cause of it occasionally not being detected on ultrasonography or laparoscopy, as was the case in our patient. [3,4] Katara and colleagues emphasized that plain X-ray of abdomen and pelvis, the classical routine investigation, appears to be a more reliable method but it is often forgotten nowadays in the heat of freely available ultrasounds and contrast enhanced computed tomography (CT) scans. [4]

Due to a dense fibro elastic reaction, adhesions are formed in misplaced IUCD which necessitates a laparotomy for its removal. In 85% of cases, uterine perforation by IUCD may remain asymptomatic. Misplaced IUCD may invade its neighboring organs such as the adnexa, broad ligament, pouch of Douglas, intestine (obstruction, stricture, and adhesions), urinary bladder (vesical calculi), peritoneum (omental mass or intraperitoneal bleed or abscess), appendix (perforation mimicking appendicitis) or rectum. [3-9] Often these complications are due to faulty technique of IUCD insertion which is push out technique. The treatment of the misplaced IUCD is surgical, laparoscopy or laparotomy. Withdrawal of the migrated IUCD is advisable even if it is asymptomatic, so that further complications like a bladder or bowel perforation or fistula formation may be prevented. [10]

## CONCLUSION

IUCD insertion should preferably be done by trained personnel who should also know proper follow up in case of complications.

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