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Case Report

Mystery of a missing Cu-T: a case report

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ABSTRACT

The Cu-T intrauterine device (IUD) is a popular contraceptive method. However, a "missing" Cu-T IUD poses a clinical challenge. This situation arises when the IUD cannot be visualized on ultrasound or X-ray, raising concerns about potential complications. This review discusses the etiology, diagnosis, and management of a missing Cu-T IUD, including the role of imaging modalities, surgical interventions, and patient counseling. This case report aims to discuss the complications and consequences of a "missing Cu-T" IUD, including perforation, migration, and infertility. We examine the causes, diagnosis, and management of this condition, highlighting the importance of timely detection and appropriate intervention to prevent long-term consequences.

Keywords: Displaced Cu-T, Migration of IUCD, Uterine perforation, Laparoscopy, Hysteroscopy

INTRODUCTION

The Cu-T intrauterine device (IUD) is a popular contraceptive method. However, a "missing" Cu-T IUD poses a clinical challenge. This situation arises when the IUD cannot be visualized on ultrasound or X-ray, raising concerns about potential complications. This review discusses the etiology, diagnosis, and management of a missing Cu-T IUD, including the role of imaging modalities, surgical interventions, and patient counseling. This case report aims to discuss the complications and consequences of a "missing Cu-T" IUD, including perforation, migration, and infertility. We examine the causes, diagnosis, and management of this condition, highlighting the importance of timely detection and appropriate intervention to prevent long-term consequences.[1]

CASE REPORT

A 22-year-old lady, P1L1with previous LSCS followed by PPIUCD insertion done 3 years back, presented to the gynaecology OPD of Sri Venkateswaraa medical college hospital and research center for Cu-T removal.

On admission the patient was P1L1 with previous child birth 3 years back. As the patient was planning for another conception, she went to a nearby PHC for Cu-T removal. As the process of removal was painful and the Cu-T did not come out despite pulling the threads, there was suspicion of embedded Cu-T and hence an ultrasound, followed by a CT was done and the patient was referred to our hospital for Cu-T removal.

On examination, her general condition was unremarkable. Abdomen was soft and non-tender. She was obese without any comorbidities, had irregular menstrual cycles, was otherwise asymptomatic with stable vitals and normal blood investigations. She had a previous suprapubic healthy transverse LSCS scar. On per speculum examination cervix was pulled up with pin point OS, 4 cm long Cu-T thread was seen hanging in the vagina. On bimanual examination uterus was normal in size, anteverted, cervix was pointing downwards, fornices were free and non-tender with no cervical motion tenderness, Cu-T threads were felt. The patient was further investigated upon. Ultrasonography revealed uterus size of 9.1×5×3.8 cm, ET-8 mm, IUCD not visualized in uterine cavity, seen to be displaced outside lower uterine segment

at the level of LSCS scar, no collection noted surrounding the displaced IUCD. Further a X-ray pelvis (AP view) was done which showed displaced IUCD in pelvic brim. Finally, patient underwent non contrast CT scan of pelvis which showed uterus of 9.4×6.6×3.4 cm size with an intrauterine contraceptive device (maximum length 3.4 cm) misplaced, seen traversing the anterior myometrium reaching until the left belly of rectus abdominus muscle with surrounding inflammation in the rectus abdominus muscle suggesting an IUCD perforation.

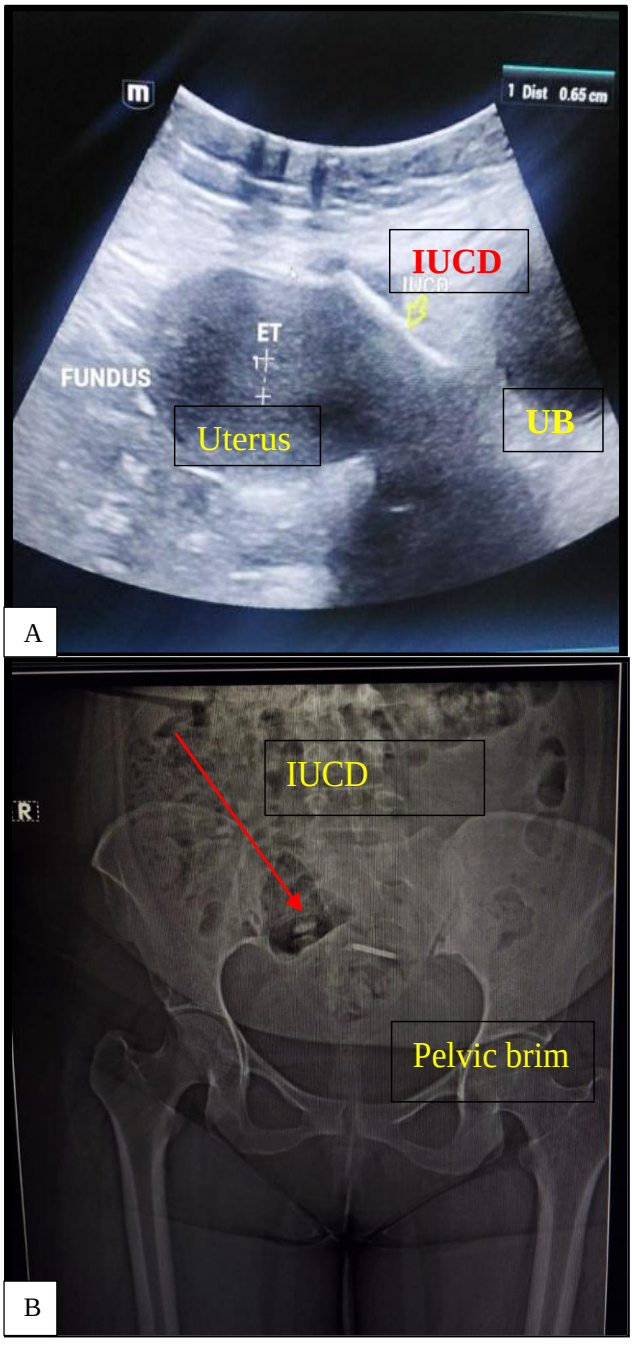


Figure 1 (A and B): Preoperative USG revealed IUCD not visualized in uterine cavity, seen to be displaced outside lower uterine segment at the level of LSCS scar, X- ray pelvis (AP view) showed displaced IUCD in pelvic brim.

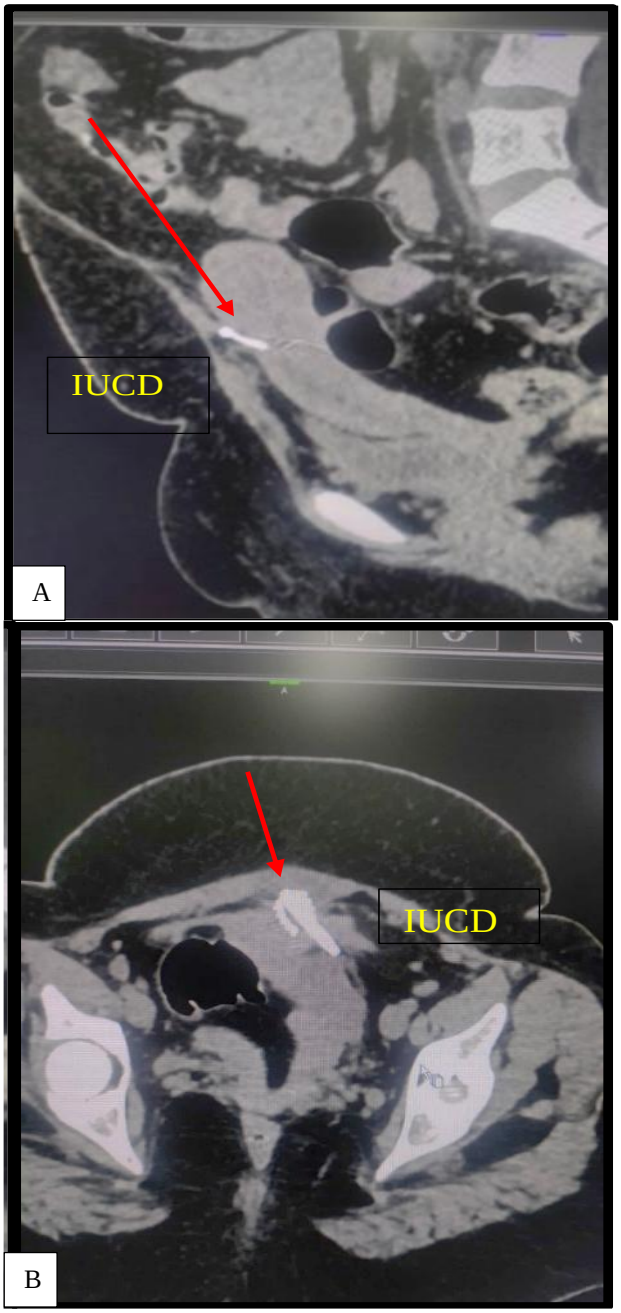
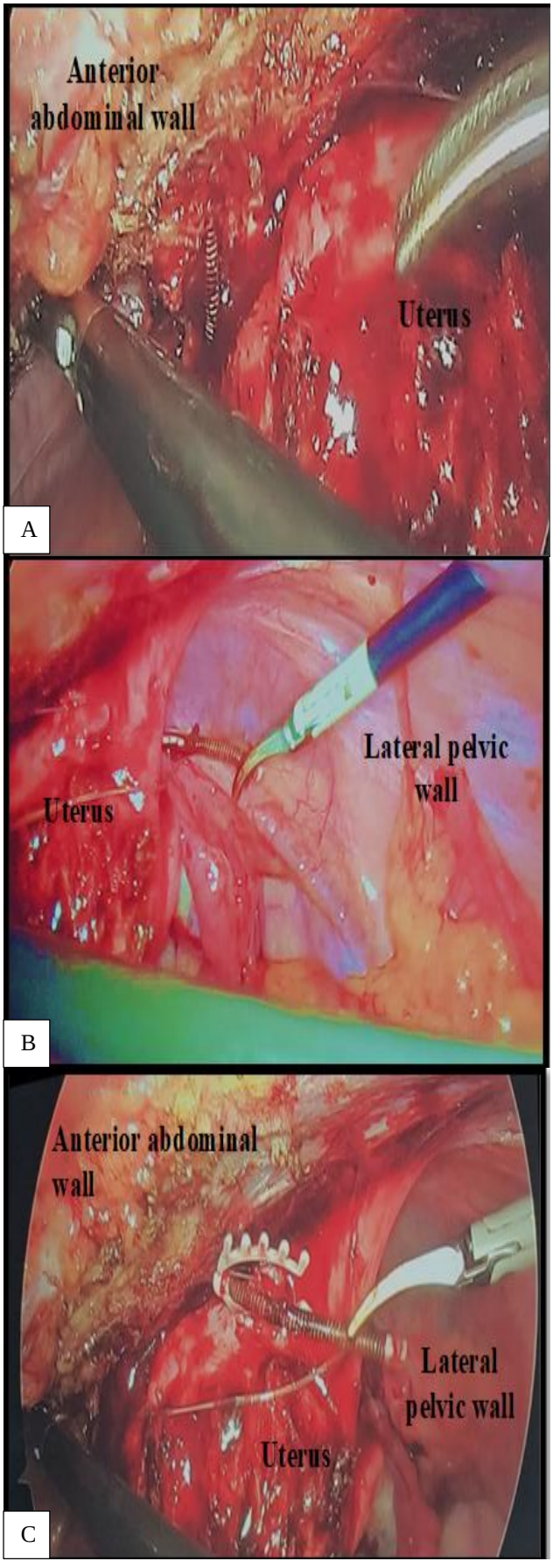


Figure 2 (A and B): Preoperative CT scan showed an intrauterine contraceptive device (maximum length 3.4 cm) misplaced, seen traversing the anterior myometrium reaching until the left belly of rectus abdominus muscle with surrounding inflammation in the rectus abdominus muscle.

Patient was admitted and planned for diagnostic hystero-laparoscopy (DHL). After taking anesthesia fitness, informed and written consent was obtained. Need for the open laparotomy, if needed, was explained. Intra Op-Omental adhesions were noted between the anterior abdominal wall and the anterior surface of uterus. Ventral suspension of uterus to anterior abdominal wall was seen. Adhesions were released and Cu-T was visualized over the anterior surface of the lower segment of uterus (just hinged into the rectus sheath).



Figures 3 (A-C): The intra-op views.

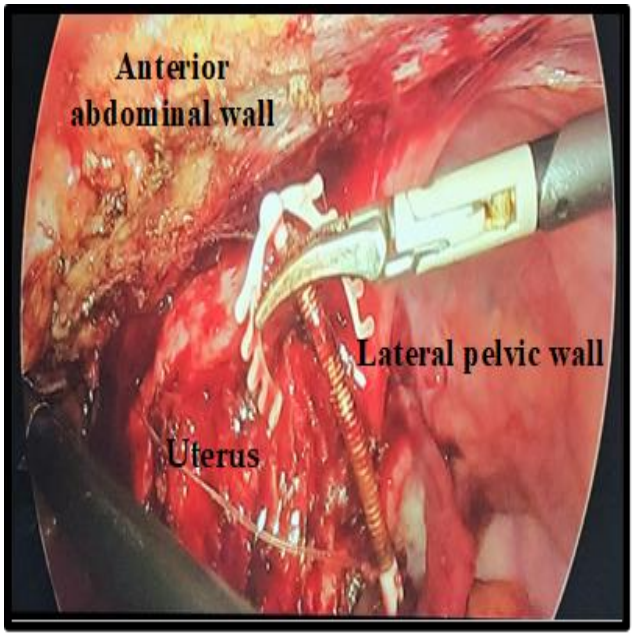


Figure 4: Cu-T found.

DISCUSSION

Newer IUCDs include Cu-T 380, multiload 375 and LNG IUD. While Cu-T 380 has a life span of 10 years, Multiload and LNG-IUD have a life span of 5 years each. Multiload 375 has a flexible plastic shaft with serrated fins to keep the device inside the uterine cavity. Its vertical shaft is radio-opaque. LNG IUD (Mirena) has a T shaped radio-opaque polyethylene frame with the stem wrapped with levonorgestrel (LNG). It is commonly used to treat AUBs.

The complications associated with IUCDs include pregnancy (failure), uterine perforation, bowel perforation, bowel obstruction, adhesions, injury to adjacent organs and peritonitis.[4] Not just plain Cu-T, even hormone-releasing IUD s can cause uterine perforation.[1]

Incidence of perforation is 13 in 1000 insertions.[2] Majority of these happen during insertion of IUCD due to faulty insertion techniques which causes partial perforation and later complete perforation due to uterine contractions, bowel peristalsis and bladder contractions.

When IUCDs migrate out of the uterus, they act as a foreign body. Also, Cu-T 380 releases Cu ions. These cause release of inflammatory mediators and thereby lead to a massive tissue response causing adhesion formation.[5,8]

Routinely only absence of IUCD threads during a per speculum examination, triggers a suspicion of misplacement. But in our case, although the threads were very clearly seen during examination, the patient's IUCD was found to be displaced.

Symptoms like recurrent urinary tract infections, urinary frequency, tenemus, suprapubic pain, dysuria, haematuria,

intravesical stones on radiological imaging should raise suspicion of IUCD displacement to the bladder. Symptoms of persistent right iliac fossa pain indicate IUCD migration to the appendix.[7] Recurrent abortions may indicate forgotten IUCD. Although some patients show symptoms of the displacement, a majority, 85% of patients are asymptomatic, and there is no effect of displacement on the adjacent organs.[3] Hence for patients who have an IUCD insertion done, we recommend annual ultrasound examination besides the routine per speculum and per vaginal examinations.[6] In centers where there is non-availability of ultrasound, X rays can be used as an alternative imaging modality to ensure the right position of the IUCD. Surveillance with X rays also have the advantage of diagnosing embedment into the myometrium which is difficult to diagnose on an ultrasound.

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