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Successful Hysteroscopic Removal of an Embedded IUCD

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Abstract: ***Embedded intrauterine contraceptive devices (IUCDs) pose a technical challenge and may require hysteroscopic removal. Management becomes more complex in patients with significant comorbidities such as renovascular hypertension due to aortoarteritis and morbid obesity, where anesthetic and hemodynamic risks are considerable. Proper choice of an imaging modality and multidisciplinary approach improves patient outcomes. Hysteroscopic removal of an embedded IUCD is a safe and effective minimally invasive approach even in high- risk patients. This case highlights the importance of individualized perioperative planning in patients with complex vascular comorbidities.***

Keywords: Hysteroscopy, Embedded IUCD, Reno-vascular hypertension, Aorto-arteritis, Morbid Obesity

1. Introduction

Intrauterine contraceptive devices (IUCD) are among the most commonly used reversible methods of contraception worldwide due to their effectiveness, safety, and long duration of action. Despite their overall safety, complications such as missing threads, device displacement, embedment within the myometrium and difficult removal can occasionally occur [1]. These situations pose a clinical challenge and may lead to patient anxiety, abnormal uterine bleeding, pelvic pain or infertility.

Conventionally, removal of IUCDs with missing strings is attempted using blind methods or under ultrasound guidance. However, these techniques may be unsuccessful and carry a risk of uterine trauma. Operative hysteroscopy offers a minimally invasive, visually guided approach that allows to identify precise localization and safe removal of retained or embedded intrauterine devices under vision, while simultaneously assessing the uterine cavity for associated pathology [2].

We report a case of successful hysteroscopic removal of embedded copper intrauterine device, highlighting the role of hysteroscopy as a definitive and safe modality in management of embedded IUCD removal.

2. Case Description

43 year, Para2 Live1 Abortion4, previous lower segment caesarean section with BMI of 40.39 Kg/m2 visited gynecology OPD for IUCD (Cu T 380A) removal. The IUCD was inserted 10 years ago following second trimester medical termination of pregnancy for an anomalous fetus. Patient was a known case of aortoarteritis with renovascular hypertension diagnosed 20 years back with Magnetic Resonance Angiography suggestive of stenosis of left subclavian artery, left renal artery and left superior mesenteric artery.

On per speculum examination, the IUCD threads were not seen and IUCD could not be removed by blind attempts. Ultrasonography and Magnetic Resonance Imaging of pelvis were suggestive of vertical limb of IUCD in the endocervical canal with its right arm perforating the right lateral wall of the cervix with tip of the transverse arm reaching the serosa of cervical wall. Left arm was seen to perforate almost 50% of the cervical wall. Caesarean scar niche measuring 2 mm in depth and 6 mm in length was noted in anterior myometrium at the site of the previous caesarean scar.

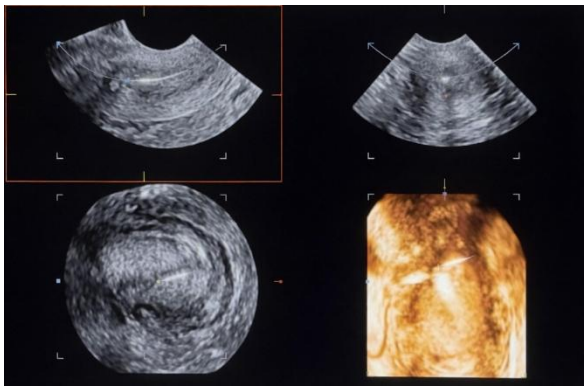

Figure: Ultrasound image of an embedded IUCD (Cu T 380 A)

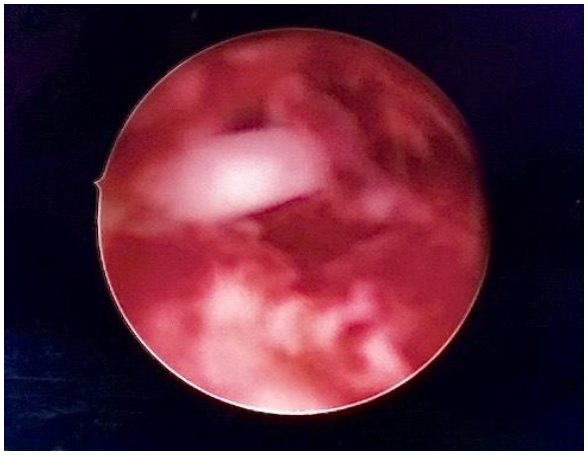

Figure: Hysteroscopic view of embedded right arm of IUCD

Figure: Retrieved IUCD

Taking into consideration patients' medical condition and morbid obesity, she was assessed by cardiologists, nephrologists, endocrinologists and anesthesiologits and fitness for procedure obtained. Patient and relatives were counselled and informed consent was taken for hysteroscopy guided IUCD removal The findings seen on MRI were confirmed. Hysteroscopy was performed using a four channel hysteroscopy sheath. The vertical limb was held with a grasper introduced through the operative sheath and removed along with left arm. Embedded broken right arm was removed under vision using grasping forceps.

Postoperatively, patients' vital parameters were normal and had no complications and was discharged next day.

3. Conclusion

Removal of an embedded IUCD poses a challenge to the gynaecologist. Blind attempts of IUCD removal using artery forceps or hooks under anesthesia are often the first line approach; however, the techniques may fail, particularly in cases of embedment, abnormal uterine anatomy, cervical stenosis or previous uterine surgery. Repeated blind attempts increase the risk of uterine trauma, infection, bleeding and patient discomfort [3]. Therefore, an alternative method that allows direct visualization aiding removal is preferable.

Hysteroscopy provides a minimally invasive, safe and highly effective approach for the removal of retained or embedded IUCDs [4]. The ability to directly visualize the uterine cavity allows proper visualization of an IUCD, assessment of degree of embedment and controlled removal under vision thus, minimizing the complications. Additionally, hysteroscopy permits simultaneous evaluation of uterine pathology.

This case reinforces the role of hysteroscopy as the preferred modality for managing difficult IUCD removal.

4. Clinical Significance

Hysteroscopic removal of an embedded IUCD in high risk patients represent a safe, minimally invasive and effective approach when performed with appropriate planning and expertise. This case highlights that even in medically complex patients, hysteroscopy allows precise localization and atraumatic retrieval of the device, minimizing the need for more invasive surgical interventions. Careful patient selection, multidisciplinary co-ordination and meticulous intraoperative monitoring are crucial to optimize outcomes.

References

[1] Myo MG, Nguyen BT. Intrauterine Device Complications and Their Management. Current Obstetrics and Gynecology Reports. 2023 Apr 27;12(2):88–95.
[2] Habana ME, Asto MaRosielynD. Hysteroscopic-guided removal of retained intrauterine device: Experience at an Academic Tertiary Hospital. Gynecology and Minimally Invasive Therapy. 2018;7(2):56.
[3] Shrimal D, Vasudeva A, Hebbar S, Chawla A. Ureteric Avulsion following Blind Attempts at Retrieval of Intrauterine Contraceptive Device: A Clinical Lesson to Primary Care Givers. JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH. 2018;
[4] Spielman S, Crifase C, Dadrat A, Oshinowo A. Surgical Techniques for Hysteroscopic Removal of an Embedded IUD Fragment. Journal of Minimally Invasive Gynecology. 2025 Nov;32(11):S28.