

## Translocation of IUCD into caecum causing acute appendicitis

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### ABSTRACT

Cases of extra uterine translocation of intrauterine contraceptive device (IUCD) to adjacent structures like peritoneal cavity, urinary bladder & sigmoid colon have been reported. Here is a case of translocation of IUCD into the caecum presenting as appendicitis. Appendicitis resulting from IUCD translocation is very rare. As per our knowledge only 19 cases have been reported earlier.

**Keywords:** IUCD, appendicitis, extra uterine translocation, copper T, foreign body

### Introduction

Intrauterine contraceptive device (IUCD) is one of the most frequently used reversible family planning method in the world. [1] Cases of extra uterine translocation of IUCD to peritoneal cavity, [2] urinary bladder [3] & sigmoid colon [4] have been reported. Very few cases have been reported when IUCD translocated into the appendix or the caecum. Migration of IUCD to appendix is exceptional. [5] As per our knowledge till date only 19 cases have been reported previously when IUCD perforated the appendix or the caecum to cause appendicitis. Here we are reporting another case of translocation of IUCD into the caecum presenting as appendicitis.

### Case report

A 35 yrs female, who had undergone IUCD insertion 4 years back, presented with acute pain in right iliac fossa (RIF) and vomiting. On examination Macburney's tenderness was present & Rovsing's sign was positive. Her total count was raised with polymorph predominance. X-ray KUB showed a misplaced IUCD in the RIF. [Fig. 1] An exploratory laparotomy was done via midline incision. Appendix was found to be inflamed. IUCD was palpable inside the caecum. Caecum was opened, IUCD was found inside the lumen with its string in the appendicular lumen. Appendicectomy was done, IUCD removed and caecum was closed primarily. Her post operative period

was uneventful and she had a complete recovery.



**Fig. 1 X-Ray showing IUCD (inside the circle) in the Right Iliac Fossa**

### **Discussion**

IUCD is one of the most frequently used reversible family planning method in the world. [1] Associated complications are bleeding, infection, ectopic pregnancy and uterine perforation. Uterine perforation is one of the most serious but uncommon complications associated with an IUCD. [6] The incidence of IUCD perforation ranges from 0.05/1,000 to 13/1,000. [7, 8] The mechanism and etiology of IUCD perforation and translocation to sites far from uterine cavity remains controversial. Most common cause of uterine perforation is at the time of IUCD insertion. Translocation of IUCD to adjacent viscera may occur later on due to complete extrusion of IUCD through the myometrium. This may be aided by spontaneous uterine contraction and hydrostatic negative pressure differences between the low intraperitoneal pressure and relatively higher intrauterine pressure. [9] The migration and movement of the device in the peritoneal cavity may also be aided by the contraction of other abdominal viscera i.e. urinary bladder and small and large intestines. The myometrium has long been

established as capable of spontaneous contractions in the non-pregnant and puerperal states. [10] This spontaneous migration appears to be the reason in our case as the patient has presented four years after IUCD insertion. IUCD migration is more frequently seen in women who undergo labour with their IUCD in place; this is due to the reduction in the size of the uterus and thinning of the uterine walls in the postpartum as a result of hypoestrogenemia. [8]

Copper containing devices have been shown to cause considerable tissue response when present in peritoneal cavity. [11] In our case the string of the IUCD was found in the lumen of the appendix which may have obstructed the lumen and along with the copper in the IUCD must have caused appendicitis.

The treatment of a migrated IUCD is surgical, either laparoscopy or laparotomy. Withdrawal of the migrated IUCD is advisable even if its migration has not given rise to any clinical symptoms [12] and can avoid further complications like bowel perforation, bladder perforation, or fistula formation. [13]

### **Conclusion**

Migration of IUCD to the adjacent viscera is a known complication. Appendicitis resulting from IUCD migration is rarely seen. Plain X-ray will be enough in most of the cases where it will show the IUCD away from the site of the uterus. Surgical removal of the migrated IUCD is advisable for the treatment of symptoms and prevention of complications. Although in the present case migration of IUCD seems to be due to spontaneous translocation, it is advocated that the insertion should be done by skilled hands and regular self examination for the presence of string should be done, as the

migration is most common at the time of insertion.

### References

1. Intrauterine devices and intrauterine systems. *Hum Reprod Update* 2008;14:197-208.
2. Bartalena T, Pascali E, Rinaldi MF, Marasco R, Bassi F, Alboni C, et al. Transmigrated intrauterine device discovered 17 years after its insertion. *Australasian Radiology* 2007; 51(4):B284–B286.
3. Istanbuluoglu MO, Ozcimen EE, Ozturk B, Uckuyu A, Cicek T, Gonen M. Bladder perforation related to intrauterine device. *J Ch Med Asso* 2008;71(4):207–209.
4. Vandaele N, Iwanicki-Caron I, Piat M, Herve S, P Ducrotte. Translocation of an intra-uterine contraceptive device with sigmoid penetration through an endometriotic nodule. *Gastroenterologie Clinique et Biologique* 2009; 33(6-7):488–490.
5. Cuillier F, Ben Ghalem S, Haffaf Y. Intrauterine device appendicitis: an exceptional complication. *J Gynecol Obstet Biol Reprod* 2003;32:55-7.
6. Key TC, Kreutner AK. Gastrointestinal Complications Of Modern Intrauterine Contraceptive Device. *Obstet Gynecol* 1980; 55:239-244.
7. Ozçelik B, Serin IS, Basbug M, Aygen E, Ekmekçioğ Lu O. Differential diagnosis of intra-uterine device migrating to bladder using radiographic image of calculus formation and review of literature. *Eur J Obstet Gynecol Reprod Biol* 2003;108(1):94–96.
8. Hoscan MB, Kosar A, Gumustas U, Guney M. Intravesical migration of intrauterine device resulting in pregnancy. *Int J Uro* 2006;13(3):301–302.
9. Eke N, Okpani AO. Extra uterine translocated contraceptive device: a presentation of five cases and revisit of enigmatic issues of iatrogenic perforation and migration. *Afr J Repro Health* 2003;7(3):117.
10. Rubinoff ML. IUD appendicitis. *J Am Med Asso* 1975;231(1):6.
11. Chang HM, Chen TW, Hsieh CB, Chen CJ, Yu JC, Liu YC, et al. Intrauterine contraceptive device appendicitis: A case report. *World J Gastroenterol* 2005;11(34):5414-5.
12. Treisser A, Colau JC. Causes, diagnosis and treatment of uterine perforations by intrauterine devices. *J Gynecol Obstet Biol Reprod* 1978;7:837-847.
13. Berman MC, Cohen HL. *Obstetrics and gynecology: A guide to clinical practice. Diagnostic Medical Sonography.* Lippincott 1997:569-571.

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