



1. MBBS  
Resident General Surgery  
King Edward Medical University  
Mayo Hospital Lahore.
2. MBBS  
Post Graduate Resident General  
Surgery  
King Edward Medical University  
Mayo Hospital Lahore.
3. MBBS, FCPS, MRCS  
Assistant Professor General Surgery  
King Edward Medical University  
Mayo Hospital Lahore.
4. MBBS  
Post Graduate Resident General  
Surgery  
King Edward Medical University  
Mayo Hospital Lahore.
5. MBBS  
Post Graduate Resident  
District Headquarter Hospital  
Faisalabad.

**Correspondence Address:**  
Dr. Mohammad Sohail Asghar  
Department of General Surgery  
King Edward Medical University Mayo  
Hospital Lahore.  
kdark7582@gmail.com

**Article received on:**  
12/02/2020  
**Accepted for publication:**  
7/04/2020

## INTRODUCTION

The use of an intrauterine contraceptive device (IUCD) is one of the most prescribed and accepted methods of birth control worldwide which have been around for years. IUCDs are safe, convenient, easily available, painless and these attributes make it the top choice of contraception in females.<sup>1</sup> Over the years, there have been many design modifications which renders them even more effective form of long-acting reversible contraception. Uterine perforation due to IUCD is a serious complication but it is uncommon and it can often be asymptomatic so much so that it can wander around in pelvic or peritoneal cavity for years. IUCD leading to uterus perforation has reported incidence of 0.5-1%/1000 IUCD insertions.<sup>2</sup> Usually, IUCD is recovered after 15-20 years after menopause. We present a case where a female had an IUCD placed at the age of 35 years and was recovered surgically from the uterine wall and sigmoid colon.

## CASE

A 70-year-old lady presented to our surgical floor

## IUCD transmigration into sigmoid colon after 35 years; a case report.

**Mohammad Sohail Asghar<sup>1</sup>, Usama Shabbir<sup>2</sup>, Balakh Sher Zaman<sup>3</sup>, Jamal Anwar<sup>4</sup>, Mohammad Sohaib Asghar<sup>5</sup>**

**ABSTRACT...** Uterine perforation due to IUCD is a serious complication but it is uncommon and it can often be asymptomatic so much so that it can wander around in pelvic or peritoneal cavity for years. A 70-year-old lady presented to our surgical floor in October 2017 with generalized abdominal pain. It was an IUCD that had transmigrated from the uterus and was invading a sigmoid colon. The uterus was repaired and colostomy of sigmoid colon was made in the left iliac fossa. Uterine perforation and migration of the IUD into abdominal or pelvic organs is a major complication of IUD insertion. Most uterine perforations are asymptomatic and therefore unrecognized that is why post insertion follow-up and awareness of complications to assess for when the patient returns are important.<sup>3</sup> The cornerstone in diagnosing a uterine perforation and localization of the IUCD is ultrasound scanning.

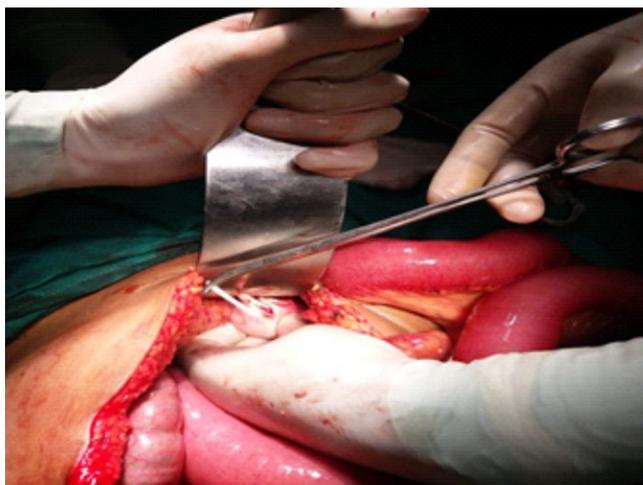
**Article Citation:** Asghar MS, Shabbir U, Zaman BS, Anwar J, Asghar MS. IUCD transmigration into sigmoid colon after 35 years; A case report. Professional Med J 2020; 27(11):2537-2540. <https://doi.org/10.29309/TPMJ/2020.27.11.4559>

in October 2017 with generalized abdominal pain and constipation for five days. She did not have any previous history of constipation, diarrhea, blood in stools, bleeding per vagina, weight loss and previous surgery. On examination, she had a tender abdomen with tenderness more in the lower abdomen. On DRE she had ballooning of rectum and finger was fecal stained. USG abdomen and Xray abdomen did not show any significant findings.



**Figure-1. Preoperative erect chest and abdominal XRAYS.**

After resuscitation exploratory laparotomy was performed. There was extensive fibrosis extending from uterus to sigmoid colon. When adhesiolysis was done and area palpated, there was a rigid structure present in such a manner that it's one half was in the uterine wall and the other half in the sigmoid colon wall. It was an IUCD that had transmigrated from the uterus and was invading a sigmoid colon. The uterus was repaired and colostomy of sigmoid colon was made in the left iliac fossa.



**Figure-2. Per operative picture showing retrieval of IUCD from Uterine and Sigmoid colon's wall.**

The patient was enquired about the device and she told that she had it placed around 35 years back but after that forgot about its presence.

## DISCUSSION

Uterine perforation and migration of the IUD into abdominal or pelvic organs is a major complication of IUD insertion. Most uterine perforations are asymptomatic and therefore unrecognized that is why post insertion follow-up and awareness of complications to assess for when the patient returns are important.<sup>3</sup> Our patient did not have any symptoms for years and the lower abdominal pain started only 5 days back. She even forgot about the device that she had placed about 35 years ago.

The risk of perforation appears to depend on the type of device placed, the skill of the operator, the position of the uterus, and the intensity of follow-up. The natural history of IUD translocation

following any type of uterine perforation is not well understood and likely depends on a number of factors, such as the type of IUD, uterine morphology, anteverted and mid positioned uterus the site of perforation, the presence and location of leiomyoma, and the mechanics at the given insertion event.<sup>4</sup>

Two mechanisms seem to be relevant in explaining the pathogenesis of the uterine perforation caused by IUCD.<sup>5</sup> The first one being that perforation at the time of insertion called misplacement and can be diagnosed by acute pelvic pain, bleeding, or lost the thread. Unfortunately, most of these perforations at the time of insertion can be missed due to a lack of symptoms if not checked by ultrasonography. The second mechanism of uterine perforation may take place slowly and steadily after a variably longer time of insertion called IUD migration, in the presence of the risk factors mentioned earlier. Symptoms may develop early or very late or even remain asymptomatic. In our patient, a long gap of 30-35 years is present so we postulate that this transmigration occurred due to fibrosis around the device and difference in consistency of tissues. Thus, patients must be evaluated for the above-mentioned risk factors by history and examination and later ultrasonographically before the IUCD is placed. Then examined again once it is inserted immediately and periodically thereafter for the prevention of uterine perforation and other complications.

Perforation may be complete; it means that the device passes through all three layers of the uterus or it may be partial in which it IUCD only invades myometrium.<sup>6</sup> In our case, IUCD perforated all the layers of uterus and invaded the sigmoid colon in such a way that one half of the IUCD was in uterus and the other half was in the sigmoid colon. There was thick fibrosis around the IUCD and walls of viscera.

Once the IUCD perforates the uterus it can migrate to the peritoneum, omentum, rectum, sigmoid colon, appendix, small bowel, colon, adnexa, and iliac vein, ureter and urinary bladder.<sup>7-10</sup> This leads to injury to adjacent viscera like rectal perforation

leading to pelvic abscess, fistulas, appendicitis, small bowel perforation and obstruction, venous emboli, vesicolithiasis, ureteric stones, and obstruction. The actual incidence of transmigration is much more than this as most of the time it goes unnoticed. Although some patients have signs and symptoms suggestive of IUD perforation including pelvic pain, bleeding, and/or infection, many patients seem apparently asymptomatic.<sup>11</sup>

The cornerstone in diagnosing a uterine perforation and localization of the IUCD is ultrasound scanning. Localizing the IUCD becomes more accurate when transvaginal scanning performed than with transabdominal scanning. Ultrasound scanning is a better modality for identifying devices that are intrauterine rather than extrauterine and the latter are better visualized with the help of X-ray and CT scan than with USG alone. So the precise localization is done with the help of a CT scan or even MRI.<sup>12</sup> IUCD has a radiopaque line over them which makes them demonstrable by the X-ray. In our patient, IUCD was neither visualized on USG nor on the X-ray.

It is conventional clinical practice to remove all devices that have completely perforated the uterine wall. The precise surgical details of the removal of IUDs from the abdomen are outside the scope of this article. Minimally-invasive laparoscopic removal is to be preferred, but when the removal is more complicated open laparotomy may be safer. In certain instances, a combination of hysteroscopy and laparoscopy and, rarely, fluoroscopy will be required for localization and removal of the ectopic IUD. Efforts should be made to protect and confirm that all vital structures of the abdomen and pelvis are without injury following all but the most straightforward operative IUD retrievals.<sup>6</sup>

Perforation can be prevented by taking special care from 48 hours to 4 weeks postpartum, using plastic sound, suitable tenaculum, appropriate traction, pull back release mechanism and application supervised by skilled and experienced clinicians.

## CONCLUSION

IUCD tend to migrate outside the uterus and enter onto other cavities or viscera even after many decades. When dealing with abdominal or pelvic pain in the elderly, the history of IUCD at any stage of life should always be sought.

## CONFLICT OF INTEREST

None to declare.

Copyright©

## REFERENCES

1. Wildemeersch D, Goldstuck ND, Hasskamp T. **Current status of frameless anchored IUD for immediate intracerebral insertion.** Developmental period medicine. 2016; 20(1):7-15.
2. Kriplani A, Garg P, Sharma M, Agarwal N. **Laparoscopic removal of extrauterine IUCD using fluoroscopy guidance: A case report.** Journal of Gynecologic Surgery. 2005; 21(1):29-30.
3. Zeino MY, Wietfeldt ED, Advani V, Ahad S, Younkin C, Hassan I. **Laparoscopic removal of a copper intrauterine device from the sigmoid colon.** JSLS: Journal of the Society of Laparoendoscopic Surgeons. 2011; 15(4):568-70.
4. Kaplanoğlu M, Bülbül M, Yüce T, Kaplanoğlu D, Aban M. **Mislocated extrauterine intrauterine devices: Diagnosis and surgical management.** J Turk Ger Gynecol Assoc. 2015; 16(2):91-5.
5. Zakin D, Stern WZ, Rosenblatt R. **Complete and partial uterine perforation and embedding following insertion of intrauterine devices. II. Diagnostic methods, prevention, and management.** Obstetrical & gynecological survey. 1981; 36(8):401-17.
6. Rowlands S, Oloto E, Horwell DH. **Intrauterine devices and risk of uterine perforation: Current perspectives.** Open Access J Contracept. 2016; 7:19-32.
7. Schoenfeld A, Pardo J, Engelstein D, Ovadia J, Servadio C. **Bladder perforation by an intrauterine device.** Journal of clinical ultrasound: JCU. 1991; 19(3):175-7.
8. McNamara M, Kennan N, Buckley AR. **Copper-7 perforation of the uterus and urinary bladder with calculus formation--sonographic demonstration.** The British journal of radiology. 1985; 58(690):558-9.
9. Guvel S, Tekin MI, Kilinc F, Peskircioglu L, Ozkardes H. **Bladder stones around a migrated and missed intrauterine contraceptive device.** International Journal of urology: official journal of the Japanese Urological Association. 2001; 8(2):78-9.

10. Yang X, Duan X, Wu T. **Ureteric obstruction caused by a migrated intrauterine device.** Urol Case Rep. 2016; 10:33-5.
11. Benacerraf BR, Shipp TD, Bromley B. **Three-dimensional ultrasound detection of abnormally located intrauterine contraceptive devices which are a source of pelvic pain and abnormal bleeding.** Ultrasound in obstetrics & gynecology: the official journal of the International Society of Ultrasound in Obstetrics and Gynecology. 2009; 34(1):110-5.
12. Peri N, Graham D, Levine D. **Imaging of intrauterine contraceptive devices.** Journal of ultrasound in medicine: official journal of the American Institute of Ultrasound in Medicine. 2007; 26(10):1389-401.

### AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author(s) Full Name	Contribution to the paper	Author(s) Signature
1	M. Sohail Asghar	Literature search, interpretation of data.	
2	Usama Shabbir	Literature search and review.	
3	Balakh Sher Zaman	Final proof reading of the article and composing.	
4	Jamal Anwar	Literature search, interpretation of data.	
5	M. Sohaib Asghar	Literature search, interpretation of data.	