

URETERIC OBSTRUCTION CAUSED BY A MIGRATED INTRAUTERINE CONTRACEPTIVE DEVICE: UNCOMMON PRESENTATION – A CASE REPORT

Dr. Abdul Ghaffar, Dr. Ahmad Bilal, Dr. Imran Hyder
Department of Urology, Nishtar Medical University, Multan, Pakistan.

Abstract

In a developing country like Pakistan where population growth rate is quite high 2.1% different contraceptive methods are frequently used by public to limit the family. Intrauterine contraceptive device IUCD is the second most commonly used method for contraception, sterilization Bilateral tube ligation being the first spontaneous migration and displacement are one of the most dreadful complication that are most commonly encountered following IUCD insertion. Misplaced IUCD usually present with the missing thread and remain asymptomatic in most of the cases. We are reporting a case wherein the patient experienced hydro-uretero nephrosis and reduced renal function due to migration of IUCD into the ureter after 10 years of insertion. This case reveals that we must be alert for missing IUCD to prevent many avoidable complication.

Key words:- IUCD, contraception, Hydro-uretero, Migration.

INTRODUCTION:

Uterine perforation due to spontaneous migration/displacements remains the most serious complication of intrauterine devices IUCDs that was first described in 1933 by Murphy.¹ The incidence of uterine perforation has been reported to be 0.05% and 0.13%^{2,3} perforation maybe asymptomatic or may cause pain, abnormal bleeding bowel or bladder trauma, of fistula formation.³ The most common place for migration of IUCD is into the urinary bladder, However, migration of IUCD into the ureter and causing ureteric obstruction is extremely rare. It is a dangerous complication leading to functional loss of kidney and is never reported in literature.

CASE REPORT

A 35 years old woman present in urology outdoor with complaints of mild dull left flank pain for last 3 years.

Her post history revealed that 10 years ago after the birth of her second child, she got an IUCD inserted for contraception. She remained well for some time. After one years on missing the menstrual periods, she consulted local doctor. She was astonished to know that she was pregnant and the IUCD was not identified in uterine cavity. Presuming that IUCD is expelled spontaneously, she was not investigated any more. Her pregnancy continued and she gave birth her third child without complications.

After some time, she developed pain left iliac fossa and left flank and got symptomatic treatment from local doctor but she was not investigated properly. On incidental ultrasonic finding of left hydronephrosis she was referred to urologist. She visited urology OPD NMU Multan where detailed history and examination was performed and investigation were done.

Physical examination revealed no pathological findings. Ultrasonography US revealed left severe hydronephrosis and mass effect at left vesicoureteral junction. Abdominal X-ray KUB showed there was an IUCD in the left side of pelvic cavity Fig. 1A. Pelvic computed tomography CT found that IUCD was located in the left lower ureter Fig. 1B causing to severe hydronephrosis with cortical thinning Fig 2. DTPA renal scan shows Poor functioning left kidney with GFR of 16ml / min whereas the GFR of right kidney was 49ml/min. After finalizing the diagnosis with the consent of patients left lower ureter exploration was planned. Before exploration, left ureteroscopy was done. The ureteral mucosa was severely edematous and stenosis, and no foreign material could be seen in the lumen. Subsequently, open surgery with left inguinal incised and IUCD was extracted Figure3. Ureteroneostomy was done and JJ stent was inserted at the end of the operation. The postoperative period was uneventful. The patients were discharged on postoperative day 4. On follow up DTPA scan, her renal function improved and her GFR of left kidney reached to 24ml/min.

Picture

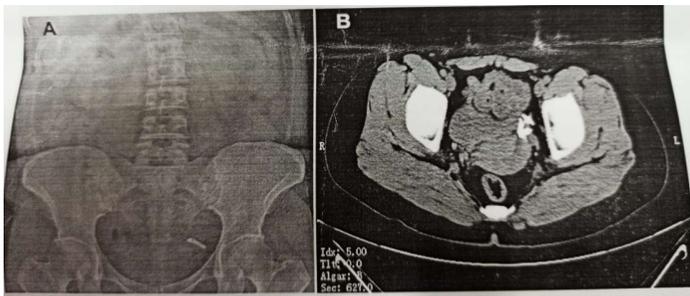


Figure1. A Abdominal X-ray KUB showed there was an IUD in the left side of pelvic cavity. B pelvic computed tomography CT found that IUD was located in the ureter which was adjacent to the third anatomize physiological narrow.



Figure 2. IUCD was located in the lower ureter was adjacent to the third anatomical narrowing causing moderate to severe hydronephrosis with cortical thinning.

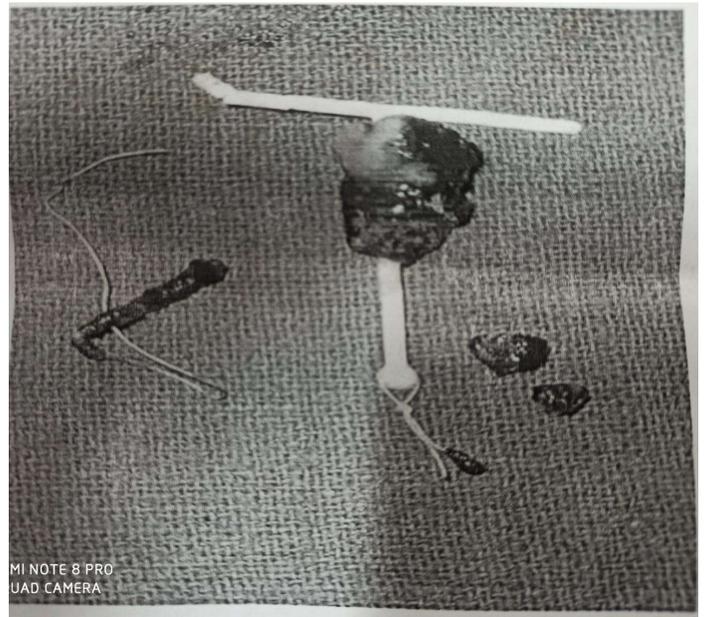


Fig 3. IUCD was extracted.

DISCUSSION

Intrauterine device is an accepted and popular worldwide contraceptive instrument especially in Pakistan . uterine perforation and migration of the IUD into abdominal or pelvic organs is a motor complication of IUD insertion.⁴ Most of uterine perforations are asymptomatic and therefore unrecognized.⁵ The process of migration is uncommon

and may occur as a result of repetitive reactive uterine contraction.

It is often asymptomatic, but may be associated with vague pelvic or abdominal pain⁶. Studies suggest that up to 15% of perforated IUCDs may cause injury to surrounding organs, most frequently the bowel.⁷ Several mechanisms can explain the spontaneous migration of IUCDs, including overlooked iatrogenic uterine perforation, spontaneous uterine contraction, involuntary bladder contraction gut peristalsis, and peritoneal fluid movement.⁸

Diagnosis is achieved by gynecological examination, ultrasonography and abdominal X-ray. However CT scan provided precise information on the abdominal migration of the IUCD as well as its close relation to the adjacent tissues and viscera.^{6,9}

Migration of IUCD to the ureter and causing the ureteric obstruction is very rare. There is no such case reported in the literature. The migration IUCD compressed the ureter and caused very serious injury to it. This kind of foreign object can cause inflammation, fibrosis, and even ischemic necrosis of the ureter. In the light of our findings, the ureteroneocystostomy was thought to be a better option to relieve the ureteric obstruction.

We are reporting this rare case to remind that we must be alert for the loss of the IUCD, its displacements or migration etc. to prevent severe injury of the nearby organs. IUCD must be regularly monitored for possible perforation of the uterus and migration to the pelvic organs.

CONCLUSION

The contraceptive measures are the need of the day, as the population growth is going beyond the limits in Pakistan. A social awareness campaign regarding contraception is need of time so that more couples can be counseled about these services. More so the complication of these techniques must be highlighted. To reduce the failure rates and complication, the health staff should be adequately trained.

They should also educate the clients about the potential benefits, adverse effects and the

complications of the contraceptive techniques. A regular self-examination for the “missing threads” should be made mandatory. The case we are reporting explains the need for surveillance in cases of misplaced IUCD. Ultrasounds as well as plain radiograph of the pelvis and abdomen are the important modalities to diagnose the condition.

REFERENCE

1. Murphy M. Migration of a Graefenberg ring. *Lancet*. 1933; 222:1369-1370.
2. Arslan A, Kanat-Pektas M, Yesiyurt H, Bilge U. Colon penetration by a copper intrauterine device: A case report with literature review. *Arch Gynecol obstetrics*. 2009; 279:395-397.
3. Kho KA, Chamsy DJ. Perforated intraperitoneal intrauterine contraceptive devices: Diagnosis, management, and clinical outcomes, *J minimally invasive Gynecol*. 2014;21:596-601.
4. Nitke S, Rabinerson D, Dekel A, et al. Lost levonorgestrel IUD: Diagnosis and therapy. *Contraception*. 2004; 69:289-293.
5. Zeino MY, Wietfeldt ED, Advani V, et al. Lost Laparoscopic removal of a copper intrauterine contraceptive device. From the sigmoid colon. *JLS*. 2011; 15:568-570.
6. Meshikhes AW, EL-Tair M, AL-Zahir AA. Laparoscopic removal of a migrated intrauterine contraceptive device. *J Obstet Gynaecol J Inst Obstet Gynaecol*. 2010;30: 317-319.
7. Zakin D, Stern WZ, Rosenblatt R. Complete and partial uterine perforation and embedding following insertion of intrauterine devices. I. Classification, complications, mechanism, incidence, and missing string. *Obstet Gynecol Surv*. 1981;36:335.
8. Shin DG, Kim TN, Lee W. Intrauterine device embedded into the bladder wall with stone formation: Laparoscopic removal is a minimally invasive alternative to open surgery. *Int Urogynecol J*. 2012; 23:1129-1131.
9. Sirikci A, Sarica K, Bayram M. Ureteral displacement due to a migrated intrauterine contraceptive device. *Urologia internationalis*. 2000; 65: 179-180.