BLADDER PERFORATION WITH INTRAUTERINE CONTRACEPTIVE DEVICE

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ABSTRACT: The intrauterine contraceptive device is a common method of contraception among reproductive aged women because of its low cost and high efficacy. Perforation of the bladder by an intrauterine device is extremely rare. We report a case of bladder perforation with a copper intrauterine device which was removed under hysteroscopy guidance.

KEYWORDS: bladder perforation, copper intrauterine device, hysteroscopy.

INTRODUCTION: The intrauterine device is generally a safe and effective method of contraception. The common complications encountered are excessive bleeding, pain and expulsion. Urinary bladder perforation with an intrauterine contraceptive device is very rare. Here we report a case of urinary bladder perforation with copper intrauterine device and its further management.

CASE REPORT: A 25 year, P3L3, with previous normal delivery got CuT inserted 6 weeks after the last delivery at a local hospital. An attempt was made to remove IUCD as per patient request at local hospital. The CuT strings were broken and CuT retained inside uterine cavity and she was referred to our hospital.

General and abdominal examination was within normal limits. Cervical canal was probed and CuT was not felt. Transabdominal and transvaginal ultrasound was done which showed normal sized uterus and the vertical stem of IUCD was found to be embedded in the fundal myometrium and the horizontal stem had pierced the uterus extending into the urinary bladder (Figure 1).



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Cystoscopy was done and bladder perforation was confirmed. Radiography also confirmed the same (Figure 2).

Hysteroscopy was done which revealed similar finding as on ultrasound. The vertical stem of CuT was embedded in the fundal myometrium near the right lateral wall of uterus and the horizontal stem was found piercing the uterine myometrium. The CuT was removed by holding and applying traction on the vertical stem. Continuous bladder drainage was given for subsequent 5 days and she was discharged thereafter. She was asymptomatic on follow-up.

DISCUSSION: Intrauterine contraceptive device generally is a safe and effective method of contraception preferred worldwide.¹ Apart from vaginal bleeding, pain and expulsion, rarely IUCD may result in uterine perforation and injury to adjacent viscera such as appendix, rectum, sigmoid colon and urinary bladder.² The reported rates of uterine perforation by IUCD ranged from 0.2 per 1000 to 9.6 per 1000 insertions. The uterine perforation by IUCD was first described in 1930 by Murphy and Andrews's independently. The uterine perforation was reported with various types of IUCD's including Lippe's loop, Dalkon shield type and copper T devices. The exact mechanism that causes uterine perforation and migration of the IUCD is not entirely known.³ The most important factor related to this complication is probably the operator inexperience in IUCD insertion technique.¹ There are also many factors that affect uterine perforation, such as the uterine size, position, timing of insertion, congenital uterine anomalies and previous uterine operations. Dysuria, suprapubic pain, recurrent urinary tract infections, hematuria, chronic pelvic pain and irritation on voiding are clinical symptoms associated with IUCD migration into the bladder.³ Stones can form as a result of complete migration of the IUCD into the bladder. The foreign materials within the bladder act as anidus for stone formation⁴ and infections constitute a separate predisposing factor. Sonography with transvaginal and transabdominal approaches is a

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useful method to detect IUCD migration.² The most accurate method for imaging of missing IUCD is computed tomography. Partial perforation can also be shown rather well with vaginal ultrasound with a full bladder or a partially filled bladder.⁵ Radiography is also useful, especially for finding the stone forming IUCD's. In most of the situations history of having used or is currently using an IUCD, haematuria, pyuria and or urinary infection, plain X-rays of pelvis, pelvic sonography and cystoscopy help in the diagnosis. Free floating IUCD is usually removed by cystoscopy and if adherent it may need cystotomy for removal. The missing IUCD should be treated since it can cause pain, infection, injury of neighboring organs, intraabdominal adhesions and even fatal complications like sepsis or intestinal obstruction. Minimally invasive methods such as laparoscopy or hysteroscopy are preferred. Foreign material in the urothelium always lead to the risk of stone formation and has to be treated.⁶ In the present study, the migration of the IUCD into the bladder was diagnosed by abdominopelvic sonography and cystoscopy and was removed under hysteroscopic guidance.

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