

## Case Report Migrated Iucd Causing Unilateral Obstructive Hydroureteronephrosis – A Rare Presentation

Dr.V. Shanthi Sree \*\*, Dr .V.Hanumath Prasad \*\*, Dr .Anil Kumar\*,  
Dr .Shivani \*, Dr .Veena \*

(\* Associate professors, \*\* Associate professors, \* Assistant professor, \* Assistant professor  
\* Assistant professor)

**Correspondence:** Dept Of Radiodiagnosis , Gandhi Medical College , Hyderabad ,  
Telangana State - India

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**Abstract:** Intrauterine contraceptive device is one of the commonest method of contraception used . More than 100 million women worldwide have been using the IUCD. Dysfunctional uterine bleeding , abdominal cramps , pelvic inflammatory disease, spontaneous expulsion are the common complaints initially after IUCD insertion . Migration of intrauterine contraceptive device is one of the complications in women of child bearing age group . we report a case where IUCD has migrated into peritoneal cavity leading to perilesional adhesions & fibrosis causing extrinsic compression on left distal ureter leading to Hydronephrosis & Hydroureter .

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### I. Introduction

Intrauterine contraceptive devices are commonly used for contraception & family planning as they are reliable , cost effective & easily reversible method ( 2 ) . In the literature ,there is one reported case of IUCD piercing the myometrium & compressing the closely coursing right ureter causing Hydronephrosis & Hydroureter ( 5 ) .To our knowledge , there are no reported cases of complete retroperitoneal migration of IUCD causing unilateral Hydroureteronephrosis at the time of reporting this case .

### II. Case Report :

A 28 yr old female patient was referred from outpatient department for suspected left ureteric colic for ultrasound examination . Her past history includes one full term male baby by Cesarian section 10 yrs ago . An year later she had a Copper- T inserted . After 3 yrs , she had decided to undergo tubectomy . On pelvic examination , no threads were visible . Hence was assumed to have had a spontaneous expulsion of IUCD. Tubectomy was performed 7 yrs ago . She was asymptomatic during these entire 8- 9 yrs.

### III. Imaging :

\* **Ultrasound Abdomen** revealed moderate dilatation of Left pelvicalyceal system( FIG 1 ) & proximal 2 / 3 rd of left ureter upto left sacroiliac joint . No calculi were seen in KUB region. However, an illdefined 2- 3 cm curvilinear hypoechoic space occupying lesion with ill defined posterior acoustic shadowing was seen at the level left sacroiliac joint ( FIG 2 ) . Uterus & ovaries were within normal limits. **Patient underwent further investigations in view of a possible abdominopelvic lesion. Plain Radiograph of KUB region** : revealed a displaced IUCD inferior to left sacroiliac joint & bilateral tubal rings ( FIG 3 ) **Intravenous urography** . : revealed moderate left hydroureteronephrosis with migrated IUCD causing compression on the distal ureter. ( FIG 4 ) **Contrast enhanced CT scan** : revealed a retroperitoneal location of displaced IUCD on left side of pelvis with subadjacent perilesional adhesions & fibrosis causing external compression on left distal ureter resulting in hydroureteronephrosis .( FIG 5 ) **Ureteroscopy** : narrowing of left distal ureter 5 cm from vesicoureteric junction **Sigmoidoscopy , Hysteroscopy , Cystoscopy** : were within normal limits

\***Operative findings** : Patient Initially underwent ureteric stenting to relieve the urinary obstruction then laproscopic removal of displaced IUCD from retroperitoneum was done



FIG 1 : Moderate dilatation of pelvicalyceal system .No calculi seen

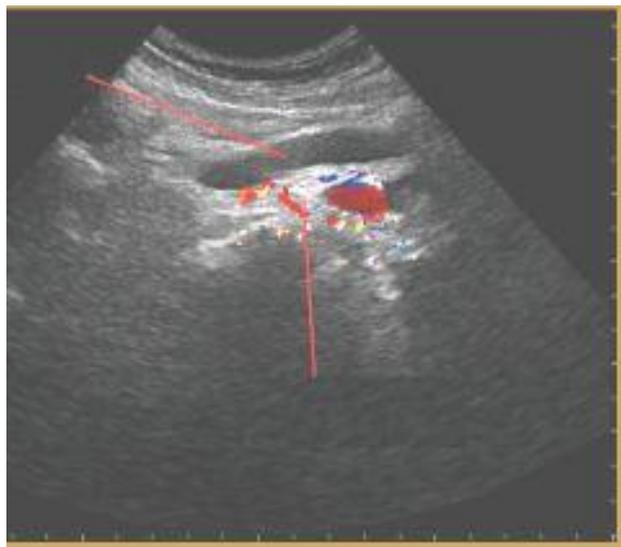


FIG 2 : Distal ureter appears dilated with abrupt cut off in left side of pelvis . An ill defined 2 -3 cm curvilinear hypoechoic space occupying lesion with ill defined posterior shadowing noted in left side of pelvis



Fig 3 : Plain Radiograph of KUB region revealing the presence of radio opaque T shaped IUCD in left side of pelvis inferior to left sacroiliac joint .Note the presence of bilateral tubal rings indicative of previous tubectomy .



FIG 4 : Intravenous urography : revealed the presence of migrated IUCD causing extrinsic compression on left distal ureter causing hydronephrosis & hydroureter proximal to the site of obstruction

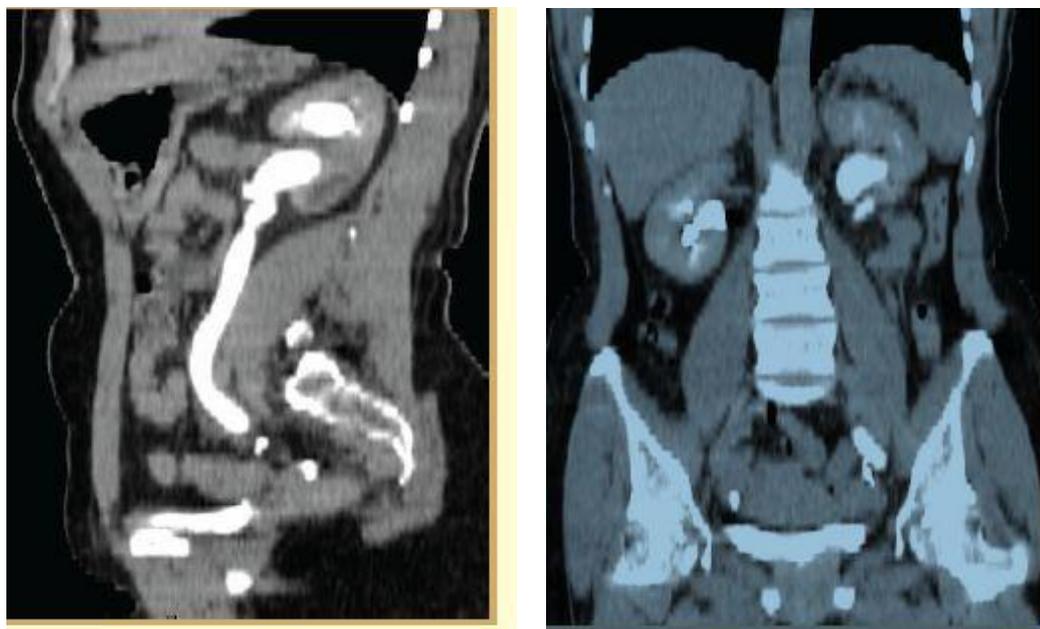


FIG 5 ( A ) & ( B ) : Contrast enhanced CT scan : Revealed the presence of migrated IUCD in the retroperitoneum causing extrinsic compression on left distal ureter leading to Hydronephrosis & Hydroureter .

#### IV. Discussion :

Intrauterine contraceptive devices (IUCD) have been used for more than 3 decades. More than 100 million women worldwide have been using the IUCD ( 1 ). IUCDs produce chronic inflammatory changes of the endometrium and fallopian tubes that have spermicidal effects, inhibit fertilization, and create an inhospitable environment for implantation ( 4 ) However, migration of the IUCD from its normal position in the uterine fundus is a frequently encountered complication. Risk factors for migration are nulliparous women ,Post partum or post abortal insertion ,faulty technique & irregular follow up ( 2 ) Different sites of IUCD migration vary in terms of their clinical significance and subsequent management . The most common places for this migration are the omentum, rectosigmoid colon, peritoneum, and bladder. Other rare places for IUCD migration include the appendix, small intestine, adenexas, iliac veins, caecum, perirectal fat, retroperitoneal space, Douglas pouch, and ovaries ( 5 ) .

The urological complications reported include partial or complete vesical migration & stone formation ,ureteric calculus formation and obstruction ,acute and chronic pyelonephritis ,lower urinary tract symptoms and

vesico uterine fistula ( 5 ,6 ) .Fibrosis around the pelvic ureter & stone formation are also reported in the literature ( 7 , 5 ,3 )

The radiologist plays an important role in the diagnosis of IUCD migration and should be familiar with its appearance at multiple imaging modalities ( 4 ) .

Multiple imaging modalities can be used to evaluate an IUCD, but Sonography is an appropriate investigation of choice for initial evaluation. Conventional radiography of the abdomen & Pelvis is mandatory for all cases of missing IUCD. CT Scan & MRI play an adjuvant role in proper evaluation of migrated for its location , associated complications & further planning & management

In the present case ,the migration of IUCD & its associated complications were diagnosed by sonography , Plain radiograph of KUB region , Intravenous urography & Contrast enhanced CT scan

## V. Conclusion

Every case of a non visualized IUCD threads should be carefully investigated initially with sonography & Plain radiograph of abdomen & pelvis to assess for the possibility of migration followed by other imaging modalities depending on the location .Assumption of spontaneous expulsion in case of nonvisualised IUCD threads can lead to serious complications .

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