



A rare case of urinary bladder stone secondary to migrating Intra Uterine Device

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ABSTRACT

Intrauterine contraceptive devices (IUCDs) is one of the most commonly used contraceptive in Bhutan. IUCDs are effective, safe, cheap, and has minimal systemic side effects. One of the major but rare complications IUCD is perforation of uterus and migration into pelvic and abdominal cavity and organs. Migrating into urinary bladder is a rare complication. We report the first case of bladder stone secondary to migrating Copper T in a 50-year-old female who presented to the surgical department of Jigme Dorji Wangchuck National Referral Hospital.

Keywords: Bladder calculus; Foreign body; Migrating Copper T.

INTRODUCTION

Intrauterine contraceptive devices (IUCD) are gaining popularity and increasingly used method of contraceptive in Bhutan¹. IUCDs are effective, safe, cheap, and has minimal systemic side effects but it has its own complications like bleeding, infection, failure and migrations². One of the major complications is perforation of uterus and migration into pelvic and abdominal cavity and organs. Migrating into urinary bladder is a rare complication³. We report the first case of bladder stone secondary to migrating Cu T in a 50-year-old female.

Case Report

A 50 year old female from eastern Bhutan presented to Lhuntse district hospital and Mongar Regional Referral Hospital with several episodes of fever, dysuria, increased urinary frequency and severe episodic lower abdominal pain for 2 years duration. Past medical history revealed insertion of Cu T twelve years back at the local BHU, four months after delivery of her ninth child. She had been initially treated as recurrent urinary tract infection and chronic pelvic pain. An abdominal ultrasound performed at Regional Referral Hospital revealed a urinary bladder calculus with tubular foreign body. She was then referred to National referral hospital at Thimphu.

Past medical history revealed insertion of Cu T 12 years back at local BHU four months after delivery of her 9th child She had no complications during or after insertion of the copper T. She denies being counseled on how to check for thread and for

removal or exchange. She didn't conceive after Cu T insertion.

She was complaining of dull constant lower abdominal pain. Her vitals were within normal range and abdomen was soft with mild supra pubic tenderness on deep palpation. Urine culture showed no growth and repeat ultrasound confirms Cu T within Urinary bladder with bladder stone attached to it.

Cystoscopy revealed that a bladder stone had formed around the Cu T, mostly around one arm and was partially embedded in the bladder wall. Urinary bladder stone was crushed and removed along with Cu T endoscopically. Dye test was done to rule out fistula between urinary bladder and uterus. Patient made an uneventful recovery.

DISCUSSION

Foreign body in urinary bladder can cause recurrent infection, chronic pain and results in urinary bladder calculus² Migration of an IUCD is a rare complication following IUCD insertion. Incidence of uterine perforation is 1-3/1000 insertion and migration to adjacent organ is an even more rare occurrence⁴.

Many cases are a result of partial perforation of the uterus⁵. Direct insertion into bladder via uterus and very rarely insertion into bladder are also possible. Few months after delivery uterus is soft and thin therefore IUD insertion should be done with extra care⁶.

Regular checkup and exchange timing should be well counseled at the time of insertion.

Since the Cu T was not free from bladder wall her chronic pain and infection could be attributed to Cu T. Calculus formation indicates the chronic duration in urinary bladder serving as a nidus for calculus formation. Other nidus can be forgotten stent, ruptured Foley balloon, sutures and resectoscope sheath⁷. Pain and infection may have aggravated as the stone size increased gradually.

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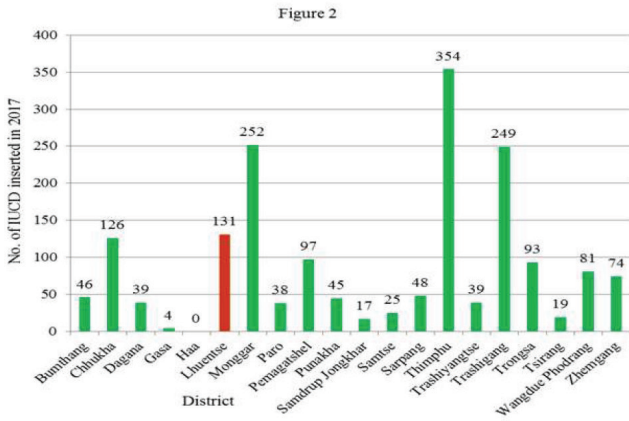


Figure 1. Bar Graph representation of No of IUCD inserted in year 2017 district wise as per Annual Health bulletin 2018. Marked 3rd highest (Lhuentse), our patient is from Lhuentse



Figure 2. Ultrasound image of distended urinary bladder showing bladder calculus and migrated IUCD attached together

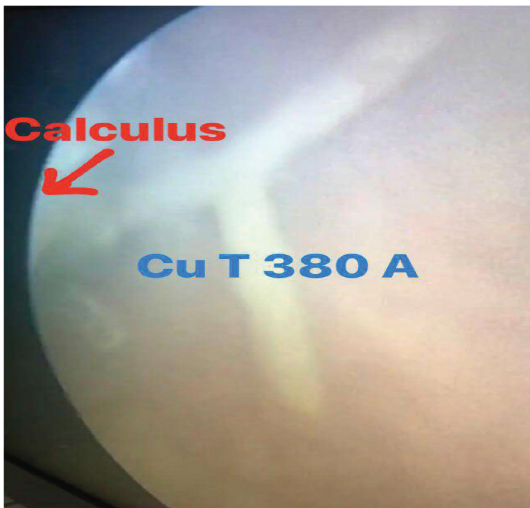


Figure 3. Cystoscopic view of migrated Cu T- 380- A with calculus on one arm



Figure 4. Migrated IUCD and stone fragments kept with patient after 10 months post removal

CONCLUSIONS

Urinary bladder stone is a rare complication of IUCD migration. Rare complications like this can be detected early by counseling patients to check for string of intrauterine device regularly. Suspect migration if string is missing, presentation of resistant urinary infections or chronic pelvic pain. Follow up ultrasound should be done early in suspected cases.

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