

Vesical migration of intrauterine device reported as bladder stone on imaging “case report”

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INTRODUCTION

- The intrauterine device (IUD), including the copper IUD and the levonorgestrel intrauterine system, is a widely used method of reversible long-acting contraception in women. Approximately 1 to 3 of 1000 insertions result in migration. Notably, the bladder is the second most common site for such migration, following the bowel, with a reported frequency of 24%. This migration can result in the formation of bladder stones, presenting a rare but significant clinical concern.

OBJECTIVES

- This case report describes the incidental finding of a migrated intrauterine contraceptive device (IUD) within the urinary bladder, identified during cystolitholapaxy. The report emphasizes the importance of considering IUD migration as a possible cause of urinary symptoms and vesicolithiasis in women after IUD insertion.

CASE REPORT

- A 32-year-old woman with a history of hypertension, prediabetes, and morbid obesity, presented with intermittent dysuria associated with mild flank pain, urinary frequency and urgency. She denied gross hematuria. Investigations revealed microscopic hematuria, a negative urine culture, and a 2.9 cm bladder stone on ultrasound. She was referred to a urologist and underwent cystoscopy and cystolitholapaxy. During the procedure, a calcified IUD was found embedded in the upper left bladder wall, resulting in vesical stones (Figure #1a,1b). Post cystolitholapaxy (Figure #2), attempts to remove the IUD cystoscopically were unsuccessful as it snapped. However, the horizontal copper arms and 1 cm of vertical limb were retrieved.

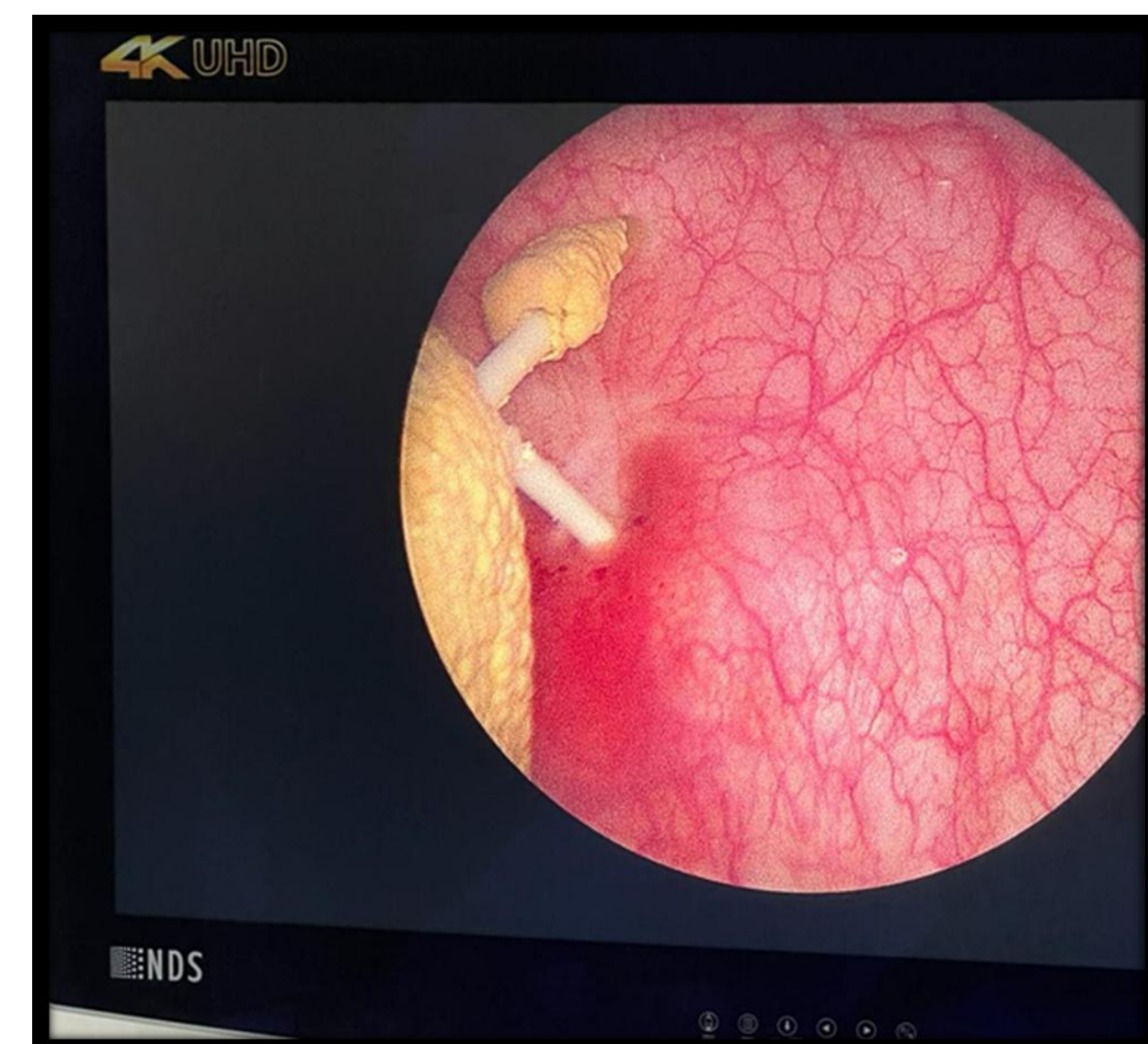


Figure #1a



Figure #1b



Figure #2

- Magnetic resonance imaging (MRI) post procedure revealed the IUD in the lower uterine segment, with the stem embedded in the right lateral uterine wall. There was no evidence of the IUD projecting into the bladder, and the uterus was adherent to the bladder dome, no fistula noted. Surprisingly, a second IUD was found in the endometrial cavity, which the patient was unaware of.
- The patient underwent hysteroscopy, diagnostic laparoscopy, and adhesiolysis to remove the coil remnant from the bladder's dome. An intact copper IUD was found and removed from the lower uterine cavity (Figure #3). Laparoscopy revealed coil threads emerging from the right uterovesical pouch (Figure #4), which were fully retrieved after adhesiolysis. Bladder integrity was confirmed using methylene blue dye and cystoscopy. The patient had an uneventful recovery and was discharged in stable condition. She was scheduled for follow-up but did not attend.



Figure #3

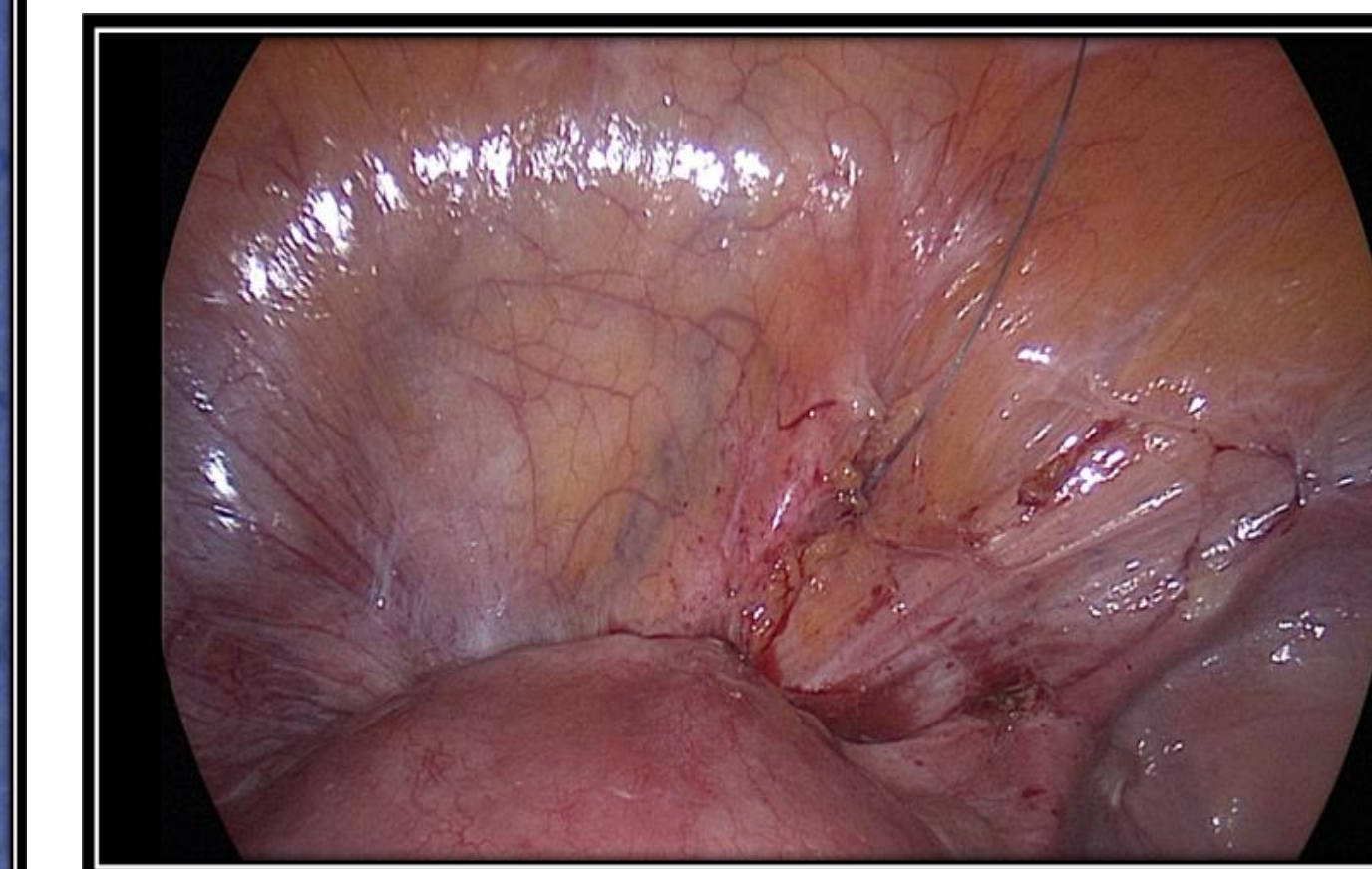


Figure #4

DISCUSSION

- IUD migration may result from uterine perforation, involuntary uterine contractions, or peritoneal fluid motion. Risk factors include insertion in the postpartum period or by an inexperienced practitioner. Vesicolithiasis is uncommon in women but can result from the presence of foreign bodies like IUDs.

CONCLUSION

- This case highlights the importance of considering IUD migration in women presenting with urinary symptoms and bladder stones. Awareness of this rare complication is essential for accurate diagnosis and treatment.

REFERENCES

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