Urology Case Reports 40 (2022) 101918

Contents lists available at ScienceDirect

Urology Case Reports

journal homepage: www.elsevier.com/locate/eucr

Intra uterine device migrating into the bladder with stone formation

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ARTICLE INFO

Keywords:
Intrauterine device
Bladder
Perforation
Stone

ABSTRACT

An intrauterine device (IUD) perforating the uterus and bladder and creating a nidus for stone formation is rarely described in the international literature. A 50-year-old woman was referred to our department for 6 months history of suprapubic pain and pollakiuria without fever. Ultrasound, X-ray examination and abdominopelvic scanner confirmed an IUD perforating the uterus and the bladder. The stone on the perforating ectopic IUD was successfully removed with YAG Holmium Laser and the IUD was extracted without complications with the aid of a transurethral resectoscope.

1. Introduction

The intrauterine device is an effective, easy contraceptive method with a rapid learning curve. Its use is widespread throughout the world. This method of contraception is simple but it is not without complications. Its bladder migration is a complication rarely described in the literature. We report a case of intravesical migration with formation of a stone which was removed by laser lithotripsy.

2. Case report

E.S is 50 years old, married and mother of 5 children, without any particular pathological history, her last daughter is 16 years old, she reports having an IUD inserted at a primary health center by a midwife one year after her vaginal delivery. The woman consulted in our center for hypogastric pain for 6 months, with pollakiuria, burning of micturition without fever. A Kidney, ureter, Bladder X- Ray (KUB) has been prescribed with an ultrasound and an abdominopelvic CT scan (Fig. 1), which showed an IUD surrounded by stones and adhered to the bladder wall, a lithotripsy of the stone was done by YAG Holmium Laser, followed by transcervical ablation of the IUD using a sharp coagulation loop to free the part that remained attached to the bladder wall (Fig. 2), the IUD was extracted from the bladder in its entirety (Fig. 3) and the patient was catheterized a with a Charriere 16 bladder catheter. The postoperative follow-up was without complications.

The IUD was almost completely inside the bladder and it was only adherent by a small area. When the IUD was removed, no clear bladder perforation was seen, but a small bladder pit corresponding to the trace of the electric coagulation and the nest of the IUD. The catheter was left in for three weeks. The healing was noted clinically, after the removal of the catheter, the woman did not present any pain or hematuria or urinary burning. A follow-up cystoscopy at two months was normal.

3. Discussion

Throughout the world, intrauterine contraceptive devices (IUDs) are a frequently used, reversible, popular contraceptive method. They are usually placed without major complications. Migration of the IUD to the pelvic/abdominal cavity or adjacent structures can occur after perforation.[1]

The perforation of the uterus generally causes no symptoms; but rarely causes an acute abdomen due to intraperitoneal haemorrhage. Other specific complications include perforation of the intestine or urinary bladder.[2]

In our case the patient consulted for mictional burning and abdominal pain without hematuria or fever with a sterile cytobacteriological examination of the urine.

The World Health Organization recommends removing the migrated device as soon as possible.[1]

Factors predisposing to uterine perforation following the insertion of IUD include insertion of the device by inexperienced persons, infection, susceptible uterine wall due to multiparity, and a recent abortion or pregnancy addition.[3]

For patients with an ectopic contraceptive ring in the bladder

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https://doi.org/10.1016/j.eucr.2021.101918
Received 28 September 2021; Received in revised form 21 October 2021; Accepted 24 October 2021
Available online 26 October 2021

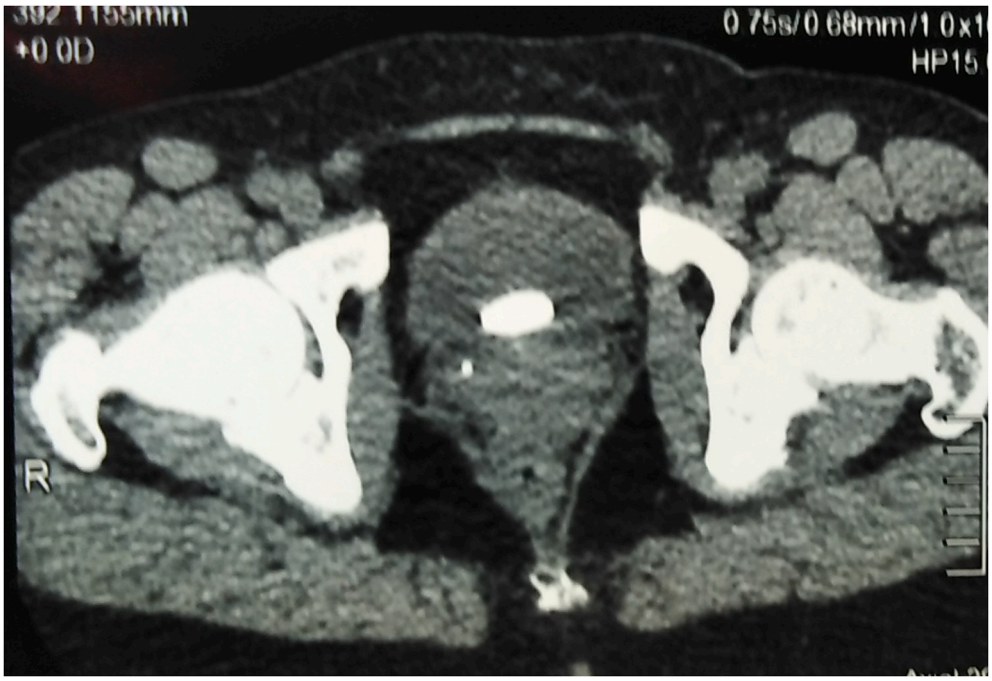

Fig. 1. Abdominopelvic CT scan showing the IUD.

Fig. 2. Endoscopic view of the IUD.

muscular layer and bladder calculi, cystoscopy combined with laparoscopy (or hysteroscopy) remains helpful.[4]

Our patient underwent a complete transurethral YAG Holmium Laser lithotripsy for calculus surrounding the IUD and transcervical removal was done with the aid of a transurethral pointed coagulation electrode for the part of IUD attached to the bladder wall.

Fig. 3. The IUD removed.

The patient was catheterized with a Charriere 16 bladder catheter, she was seen as an outpatient with good clinical evolution.

4. Conclusion

Intrauterine devices are an effective and frequently used means of contraception, the follow-up of a patient with this type of device should be periodic, the prescription of an abdomino-pelvic ultrasound and an X-ray KUB should be in front of a woman carrying an IUD with clinical signs.

Declaration of competing interest

The authors declare that there are no conflicts of interest. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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