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Original Research Paper

Urology

A CASE OF MISPLACEMENT OF CU-IUCD INTO BLADDER PRESENTED WITH SECONDARY VESICAL CALCULUS

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ABSTRACT Intravesical migration of cu-iucd is an uncommon but serious complication of intrauterine contraceptive device. Calculus formation is common over such migrated/misplaced intrauterine contraceptive devices.This dreaded complication usually presents with lower urinary tract symptoms such as supra pubic pain, frequency, and nocturia.We present a case of a 55-year-old woman with intravesical migration of copper-T device placed in the immediate postpartum period 30 years ago. She presented with dysuria, usg revealed vesical calculus and ct revealed cu iucd in pelvic area with vesical calculus.The misplaced device was encrusted with a 1.8cm-sized stone near base of bladder. Surprisingly, the patient never had symptoms and hence she never followed up for 30 years. The copperiucd could not be removed endoscopically, and therefore an open vesicolithotomy was performed. This case has been presented to highlight the significance of following up patients with intrauterine contraceptive device to avoid potentially devastating complications.

KEYWORDS :

INTRODUCTION

Intrauterine contraceptive devices (IUCDs) are widely employed to achieve reversible contraception. They are cost-effective and have low complication rates. Rarely, uterine perforation can occur during copper IUCDs (Cu-IUCD) insertion in about 1.6 per 1,000insertions [1]. However, intravesical migration and stone formation are extremely rare, as,usually, the patient presents early because of the persistent lower urinary tract symptoms(LUTSs) once intravesical migration occurs. We report a case of a 55-year-old woman who presented with asymptomatic stone formation over a Cu-IUCD, which migrated into the bladder. Surprisingly, the patient was asymptomatic for 30 years, which explains the delay in the diagnosis and treatment. This case represents the longest period of forgotten and migrated Cu-IUCD with calculus formation reported in the literature.

Case Presentation

A 55-year-old woman presented to our outpatient department with a frequency of micturition and dysuria of one-week duration. She had underwent hysterectomy in 2006. She had three children through vaginal deliveries.She had no other medical illness, and her general examination was unremarkable. Abdominal and vaginal examinations were normal. Her routine laboratory workup including renal parameters and blood counts were normal, except for pyuria on urinary analysis. A culture of her urine revealed no evidence of infection. However, an ultrasonography of the abdomen and pelvis revealed normal upper tracts with few internal echos seen in the bladder and displaced and migrated iucd(figure1). On probing the patient further, she recollected having a Cu-IUCD, which was placed immediately after her third vaginal delivery. The thread was not visualized after few weeks of insertion. However, as she was asymptomatic for 30 years, she never bothered to follow up with her gynecologist. Noncontrast computed tomography (NCCT) of the abdomen and pelvis revealed normal upper tract and not visualized uterus. However, there were one vesical calculus of size 1.8 cm formed At dependant portion of the bladder,there was curvilinear foreign body around size 3.5cm which was adhered the right lateral wall of the bladder(figure 2,3). With the clinical suspicion of intravesical migration of IUCD with subsequent stone formation,the patient underwent diagnostic cystoscopy followed by open vesicolithotomy after consenting to the same. Cystoscopy revealed approx 2cm stones in the bladder. Linear Foreign body of 3.5cm protruding from right lateral wall.foreign body was fully encrusted.on close view it seems to be cu-T thread. the vertical limb of copper-T was adhered to urothelium of the right lateral bladder wall, with horizontal limbs in the pelvic cavity which covered by tissue(figure 4). In view of the large stone size and the possibility of a fistula or peritoneum involvement, open vesicolithotomy was planned. The bladder was approached through a Pfannenstiel incision, and cystotomy was performed, which confirmed the above findings(figure 5). The vesical calculus was removed.entery point of foreign body identified.it was adhered to right lateral wall of bladder.thread of copper-T was going inside the bladder.entire copper-T with cuff of bladder tissue excised.and bladder closed with vicryl 2-0 rb.closure of the cystotomy done, and the patient made an uneventful recovery.

DISCUSSION

Cu-IUCDs are one of the commonest and cost-effective methods of reversible contraception indeveloping countries. However, they are fraught with complications such as migration,displacement, infection, extrusion, failure, and dyspareunia. They also increase the risk of abortions and pelvic inflammatory disease.Uterine perforation and subsequent intravesical migration usually occur by two mechanisms.Firstly, uterine perforation can occur at the time of placement and is characterized by severe pain during insertion of the Cu-IUCD. The second mechanism is due to pressure necrosis of the uterine and bladder walls, which causes erosion and, finally, a fistulous tract between the two organs. However, this is rare, and, most commonly, the Cu-IUCD is found in the peritonealcavity without penetrating other organs [2]. Several factors such as Cu-IUCD type, anatomicfactors, insertion timing, and insertion technique influence the risk of uterine perforation [3].The normal uterus is anteverted and anteflexed and is closely related to the bladder, which by itself increases the risk of uterine perforation during Cu-IUCD insertion [4]. Similarly, an extreme posterior position of the uterus also favors extrauterine migration of a Cu-IUCD [5].Commonly, the onset of urinary symptoms can range from three months to five years of Cu-IUCD insertion [4]. While extrauterine migration of Cu-IUCD usually presents with features of pelvic pain, dyspareunia, and chronic pelvic pain, the relatively rare intravesical migration of Cu-IUCD presents with severe LUTSs and recurrent urinary tract infections (UTIs) [6]. Chronicpelvic pain can even contribute to loss of sexual desire and marital disharmony. Thus, Cu-IUCD migration usually presents early due to persistent symptoms. The longest duration of retained Cu-IUCD reported in the literature is 10 years [7]. The present case was surprisingly asymptomatic for 30 years and was detected during the workup for LUTS of one-week duration.The long asymptomatic phase in our patient could be explained by the slow migration and fistulation into the bladder, which occurred over 30 years. Early diagnosis and

treatment of migrated Cu-IUCD is vital to prevent long-term morbidity. Intravesical migration should be suspected in any woman with Cu-IUCD presenting with persistent LUTS or UTI [8]. Ultrasonography of the KUB region provide a clue to the diagnosis and assessment of the level of encrustation. NCCT is mandatory to better assess the anatomic relationship of the migrated Cu-IUCD with other pelvic organs [4]. In ourcase, the NCCT scan revealed the exact location of the Cu-IUCD in the pelvis and confirmed the intravesical migration. All migrated Cu-IUCDs require removal, which can be achieved by different routes. Most of the intravesical Cu-IUCDs can be managed endoscopically [9-10]. Cystoscopy helps in planning the optimal management and must be performed before embarking on removal. Laparoscopy is useful when the Cu-IUCD is extruded into the peritoneal cavity [11]. Cystotomy is required in large stones or associated fistula formation necessitating repair [6]. In our case, the verticallimbs of Cu-IUCD buried under right lateral wall of bladder with adhesion around it,hence an open cystotomy was performed.

CONCLUSIONS

Persistent LUTS in a woman with Cu-IUCD deserves immediate attention. On the contrary,intravesical migration of Cu-IUCD can be totally asymptomatic for decades, as in our case. A high index of suspicion is mandatory to prevent long-term morbidity and litigations. This case has been presented to highlight the significance of following up even asymptomatic women with IUCDs.

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