

Migrated Contraceptive Devices in Female Urinary Bladder

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Abstract

Foreign bodies in the urinary bladder are not uncommon, however, only few cases have been reported in recent literature. This is not a fatal disease, however, it may lead to serious complications . This is a report of four cases of Intrauterine contraceptive devices (IUCD) which migrated into the urinary bladder and complicated by stone formation around the devices and cystoscopy was the main management route

Keywords: Intrauterine contraceptive device, Vesical stone, Foreign bodies

الاجسام الغريبة فى المثانة لدى النساء

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الخلاصة

وجود الاجسام الغريبة فى المثانة ليست بالحالات النادرة الا انه سجلت حالات قليلة فى المقالات الحديثة وان هذه الحالات ليست بالمميتة ولكنها قد تؤدى الى مضاعفات خطيرة جدا وهذه اربع حالات لاجسام غريبة فى المثانة لدى النساء والاجسام الغريبة كانت عبارة عن لولاب لمنع الحمل استخدمت لدى هذه النسوة بهدف منع الحمل ولكن لاسباب مختلفة هاجرت هذه اللولاب الرحم واستقرت فى المثانة وقد تكونت حول هذه اللولاب حصاة فى المثانة وان تشخيص و علاج هذه الحالات قد تم عن طريق ناظور المثانة .

الكلمات الدالة: لولاب منع الحمل - حصاة المثانة - الاجسام الغريبة فى المثانة

Introduction

Foreign bodies in the urinary bladder are not uncommon, however, only a few cases have been reported in recent literature. This is not a fatal disease, however it may lead to serious complications such as chronic cystitis, urolithiasis, or rectal abscess formation [1]. These foreign bodies were inserted for autoerotic or unknown reasons by patients surgical procedures[2].

Foreign bodies in the female urinary bladder may occur by self-insertion or migration from adjacent organs. The most common reason for this is sexual in nature, but hygienic behaviour and attempts to relieve voiding problems have been reported only small case series were

found in the literature devoted to foreign bodies in the urinary bladder [3]. Intrauterine contraceptive device (IUCD) has been widely used since 1965[4 ,5].

When the IUCD migrates into the bladder, which is unusual, it usually presents with symptoms and signs such as urinary frequency, tenesmus, suprapubic pain, dysuria, hematuria, urinary tract infection, urinary tract obstruction secondary to lithiasis, and urinary incontinence [6]. Persistent or recurrent urinary tract infections are the most frequent presentation, being the diagnosis of intravesical IUCD a finding during diagnostic workup [7, 8]. In most cases they are associated with secondary bladder lithiasis [9 , 10] .

Foreign bodies in the urinary bladder represent a urological challenge that requires prompt management. The suspected history and presenting symptoms are crucial and lead to further investigations [11].

The diagnosis of iatrogenic foreign bodies in the lower urinary tract requires a high index of suspicion [12]. Foreign bodies should be included in the differential diagnosis of patients with chronic lower urinary tract problems [13].

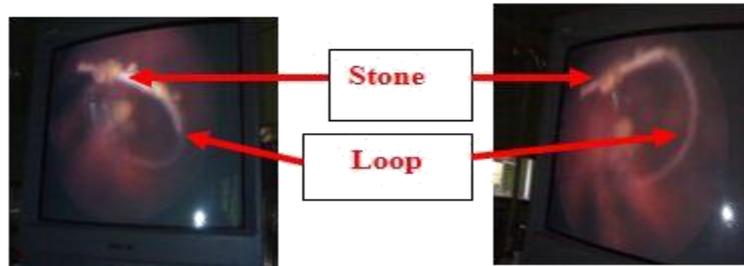
Case Report

Four young female patients presented in nearly similar age group (25-40 year) in their reproductive periods in different time periods , one of them (case one)was attempting a periodic follow up of her IUCD by here Gynecologist without any complain , during the PV (Per Vaginal) examination the thread of the IUCD was not found , Ultrasonography showed that the IUCD was not in the uterus but inside the urinary bladder . During cystoscopy the long arm of the IUCD (Copper –T)was completely inside the bladder , but the short arm was still in the wall of the bladder , the IUCD removed intact cystoscopically and urethral Foley catheter was left for 48hrs.(Picture .1)

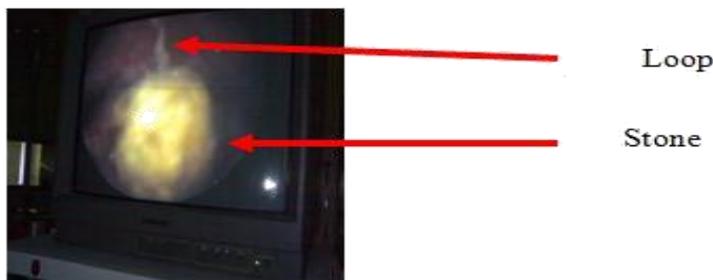


Picture.1 Intact loop removed cystoscopically – Case one

The other three patients presented with history of recurrent urinary tract infection (UTI) and stone passage , beside that one of them became pregnant in spite of the presence of IUCD (case two) . Ultrasonography of all of them revealed that their IUCD s were not in the uterus , Cystoscopy showed the long arm of the Cupper T-IUCD was hanged down from the posterior wall of the urinary bladder and a stone of 1*2 cm and 2*3 cm (case 2 , 3 respectively) developed around them , Litholapaxy and Cystoscopic removal of the stone and IUCD was carried out . (Picture 2 , 3)

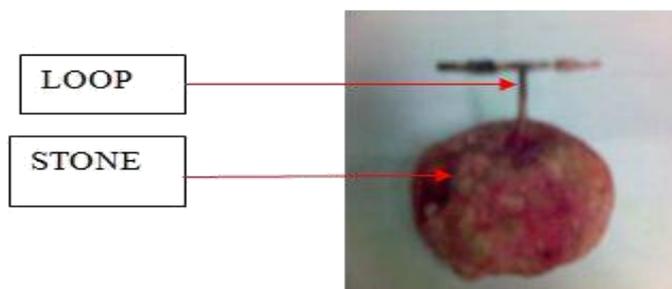


Picture .2 - Case two : 2cm Stone around the loop.



Picture .3 Case three : 3cm Stone around the loop.

For the fourth case the short of the Cupper T was inside the bladder and a big stone of 5*7.5 cm stone developed around it and was too big for Litholapaxy and cystoscopic removal so removed by open vesicolithotomy and a Foley catheter was inserted and fortunately no post operative complications reported for any of them (picture .4).



Picture 4 . Case four : A large stone around the loop

Discussion

IUCDs(Intra Uterine Contraceptive Device) are currently the most favored contraception method worldwide. They can, however, lead to complications such as uterine perforation (which is rare) and pregnancy or infection (which are more frequent. [14, 15]. The rare complication of perforation has been attributed to various causes in the literature, the number one cause being placement of the IUCD by persons other than specialists. Most authors believe that IUCD placement by specialists is very important in preventing perforation. However, migration of IUCD placed by gynecologists, as in our cases, has also been reported.[16] In addition, infection and tissue damage caused by the vaginal speculum used during IUCD placement can lead to adhesions and thus facilitate the perforation of the uterus. *Actinomyces* infections also facilitate the perforation of the uterus. *Actinomyces* infection can develop frequently in the presence of an IUCD. Another notable issue is that IUCD migration is more frequent in women who undergo labor with their IUCD in place due to the reduction in the size of the uterus and thinning of the uterine walls in the postpartum and lactation periods as a result of hypoestrogenemia, the uterus becomes more susceptible to perforation [17 , 18] , probably this (pregnancy and delivery with presence of IUCD) was the cause of migration of the IUCD in one of our case . It was not clear whether there is a relationship between specific type of ICUD or the duration of their insertion and migration , however our case used the same type of devices and none of them exceeded the allowance period . Symptoms such as chronic pelvic pain, vaginal discharge and irritation on voiding are seen when IUCD has migrated into the bladder [2 , 19].

Stones can form as a result of partial or complete migration of the IUCD into the urinary blaadder and about half of reported cases of migrated IUCDs in to the bladder in the literature resulted in stone formation, with established stone sizes varying from 1 cm to 8 cm [1], this happened in three of our cases , The foreign materials within the bladder acts as a nidus for stone formation, and infection constitute a separate predisposing factor [20]. The most suitable method for removal of intravesical foreign bodies depends on the nature of the foreign body, age of the patient, and available expertise and equipment. Most intravesical foreign bodies can be retrieved with minimally invasive techniques as we managed our case and gentle endoscopic management is the main treatment with a high success rate and Intravesical foreign bodies should be included in the differential diagnosis of patients with chronic lower urinary tract problems.

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