

## Migration of Two IUDs, with One Intra Bladder, Removed by Hysteroscopy and Cystoscopy: A Case Report

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Received: January 02, 2020

Published: January 22, 2020

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### Abstract

Insertion of an intrauterine device is a common gesture in gynecological practice. This gesture is simple and reproducible. However it can lead to serious complications such as uterine perforation but also migrate into the abdominal cavity to result in an adjacent organ injury such as the bladder and inlets. If migration of IUD is into the bladder, dysuria, and chronic pelvic pain are the found symptoms. Faced with a suspected ectopic IUD, pelvic ultrasound examination is the first line followed by the X-ray of abdomen required. When migration is suspected, hysteroscopy and cystoscopy allows not only to diagnose but also to achieve the removal of the IUD. We report a case of migration of two IUDs both removed by hysteroscopy and cystoscopy at the same patient.

**Keywords:** IUD; Migration; Complication; Hysteroscopy

### Background

IUD is a well-accepted means of reversible contraception. Migration of two IUDs including one in the bladder by complete perforation has rarely been reported and the management by hysteroscopy and cystoscopy. This may be strongly associated with uterine malposition, poor insertion's technique of IUD and early insertion of the device in the postpartum period.

### Introduction

The intrauterine device (IUD) is a very effective method of contraception, well tolerated and widely used in long-acting contraception (LARC). Its Pearl index is less than 1/100 years for women [1]. According to studies by the World Health Organization (WHO), it would be used by about 100 million women worldwide with a pregnancy rate of 0.2 to 0.8 and a continuation rate of 78 to 80% per year [2]. However its use can lead to the most serious complications when the usage rules are poorly enforced. Including the uterine perforation and migration in different neighboring organs

causing complications [3]. In this study we report a case of migration of two IUDs, including one in the bladder, removed by hysteroscopy and cystoscopy.

### Case Report

This was about a patient of 36 years 3rd gesture; 3 alive children without gynecological history and surgical individuals. It would have had asthmatic treatment. She consults for pelvic pain and dysuria lasting for 3 months despite treatment. According to the patient it would have placed an intrauterine device interval (DIU1) in 2014 months after delivery followed by an analgesic oral administration. The control on day 7 did not find any of IUD or the establishment of a new IUD (DIU2). Two years later it ablates the DIU1 followed the advent of a full-term pregnancy followed by a normal delivery in March 2017. Three months later we proceed to the establishment of an IUD (DIU3). Then in 2019 the patient feels pelvic pain, dyspareunia and important dysuria that prompted several consultations followed treatment without success. She decided to withdraw the

DIU3. However the attempted removal of DIU3 was unsuccessful because there was a migration of DIU3 with the wire not visible in the cervical or of the reference port for endoscopic search DIU3. At the consultation, there is pelvic pain exacerbated by palpation of the abdomen with the son not visible to the cervical wire. Pelvic ultrasonography performed found a uterus retro poured with DIU3 the fundus of the uterine cavity and a linear image hyper echoic through the bladder wall (Figure 1).

**Figure 1:** Image of gynecological ultrasound.

Following the ultrasound, hysteroscopy performed highlights the DIU3 in intrauterine with an ascent to the fundus resulting son in the uterine cavity. The uterine cavity is otherwise empty and regular (Figure 2). Cystoscopy performed highlights the DIU1 in the bladder and whose rod passes through the bladder wall. There is an inflammation of the falconer DIU1 the contact zone with the normal bladder wall without visible calculation (Figure 2). So the next day, under sedation, we removed the by hysteroscopy DIU3 using the hysteroscopy of Bettocchi and DIU1 by cystoscopy. The postoperative course was uneventful remission pelvic pain and dysuria D7

**Figure 2:** Endoscopic images of the uterus and bladder.

## Discussion

Currently, the IUD is reversible method of contraception most widely used due to its high efficiency and low complication rate,

used in more than 100 million women [4-6]. Uterine perforation by an IUD is an uncommon complication. The incidence is 1 to 3 on applications 1000 [7]. Uterine perforation due to an IUD is observed in 0.05 to 13 cases out of 1000 IUD investments [1,8,9]. However, there are asymptomatic forms and all cases are not reported so it is difficult to know the actual frequency of uterine perforation during IUD insertion in daily practice. After uterine perforation, IUD can potentially migrate to the pelvic cavity or intra abdominal, resulting in several complications [10]. The greater the distance of the uterus, the more likely the patient will have severe symptoms [10]. Our case report describes a patient with migration of two IUDs including one intra bladder. Some cases are not identified until months or years after insertion [11-13]. In one series, the longest interval that had elapsed between insertion and diagnosis was 43 years. [14] In our study the migration of DIU1 was diagnosed only 5 years later. Some factors may promote uterine perforation. These factors of uterine origin: a myometrium weakened by multiple pregnancies, hypo plastic uterus, uterine scar, the uterus very ante or retro poured and post partum. Ultrasound may be required during installation and monitoring of the IUD. In a study evaluating the clinical appreciation against the US assessment of the position of 181 IUDs, the negative predictive value of clinical examination was excellent 6 weeks after insertion [15]. For these authors, only the existence of abnormal clinical signs or clinical suspicion IUD malposition (length of wire, visibility) must lead to an additional ultrasound. However, in our study the uterus was poured retro and this could explain the uterine perforation during insertion. The inexperience of the practitioner is a plausible risk factor for complications but this has never been proven because of the very low incidence of uterine perforations related to IUD insertion. The analysis of a register of 17 000 perforations does not show the influence of the experience of the operator on the incidence of uterine perforations in which practitioners posed IUD less than 10 per year, between 10 and 50, between 50 and 100 and more than 100 [11]. Lippes said "The IUD does not puncture, so that there is perforation, requires the presence of a practitioner." Therefore, it is recommended that regular checkups to observe and palpate the son of the IUD along ultrasound immediately after insertion to confirm the correct insertion [16, 17]. In addition to migrating bladder intra peritoneal migration, omental, sigmoid, appendix, small intestine, colon, and its Annexes and the iliac vein have also been reported [18-20]. In our study the DIU1 was located in the bladder. The literature mentions more than 70 cases of perforation of the urinary tract [21]. The perforation of the bladder or ureter is a rare but regularly reported in IUD insertion. The most commonly reported signs are dysuria, pain above-pubescent, recurrent urinary tract infections, hematuria, chronic pelvic pain and urinary irritation are clinical symptoms associated with the migration of the IUD into the bladder [22,23]. In our study the same signs were found outside of hematuria. In our study; after migration DIU1 followed by the establishment of

DIU2 and two years later removal. At the beginning of a pregnancy to term followed with a normal delivery. This was also found in the study of Mücahit Kart [24]. In her study IUD migration remained asymptomatic for 6 years conducted with term pregnancy without any complications. In our study hysteroscopic and cystoscopic removal of IUDs were without postoperative complications with complete clinical remission at day 7 postoperatively. Although in the literature some authors report the formation of stone in the bladder in the case of bladder migration IUD [25,26], in our case it wasn't found bladder stone that could be related to the length of the IUD.

### Conclusion

Appropriate care requires good locate the IUD, search the possible complications and choose the least invasive treatment strategy. The extraction is usually possible to endoscopy. Respect for contraindications and rules of IUD insertion, and regular monitoring in young and older women can reduce the frequency of uterine perforation and migration ectopic. The high level of effectiveness of IUDs related to their good tolerance and their long duration of action and the safety of the method justify their use regardless of age or gender and should overcome the reluctance of practitioners.

### Declaration

We have no conflict of interest for this article.

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