

INTRAVESICAL MIGRATION OF INTRAUTERINE DEVICE

Case Report

RAHİM İÇİ ARACIN MESANEYE MİGRASYONU

Basri Cakiroglu

*Department of Urology, Hisar Intercontinental
Hospital, Istanbul/Turkey*

Filiz Topuz

*Department of Obstetrics and Gynecology, Hisar
Intercontinental Hospital, Istanbul/Turkey*

Raziye Narin

*Department of Obstetrics and Gynecology, Adana
Numune Training and Research Hospital,
Adana/Turkey*

Diler Koyuncu

*Department of Obstetrics and Gynecology, Dr Lufi
Kirdar Kartal Training and Research Hospital,
Istanbul/Turkey*

Suleyman Hilmi Aksoy

*Department of Radiology, Hisar Intercontinental
Hospital, Istanbul/Turkey*

Ramazan Gozukucuk

*Department of Infectious Diseases, Hisar
Intercontinental Hospital, Istanbul/Turkey*

Corresponding Author

Basri Cakiroglu

*Department of Urology, Hisar Intercontinental
Hospital, Istanbul/Turkey*

ABSTRACT

Intrauterine devices (IUD) have been used for contraception over the years. Uterine perforation and migration of IUD into the bladder are rarely seen complications. We report a 37 years old woman with a migrated IUD into the bladder and stone formation on the device.

Key words: bladder; foreign body; intrauterine device; uterine perforation.

ÖZET

Rahim içi araçlar (RIA) doğum kontrol yöntemi olarak uzun yıllardır kullanılmaktadır. RIA'ların uterin perforasyonu ve mesaneye migrasyonu nadirdir. Biz 37 yaşında RIA'ı mesaneye migre olmuş ve mevcut RIA üzerinde taş gelişmiş bir vaka sunmaktayız.

Anahtar kelimeler: İdrar kesesi; rahim içi araç; uterin perforasyonu; yabancı cisim.

INTRODUCTION

Intrauterine devices (IUD) are widely used for reversible contraception because of high efficacy, low risk and low cost. However they can occasionally cause adverse effects such as uterine perforation, septic abortus or pelvic abscess. Unusually migration of the IUD into the bladder as a result of uterine perforation and stone formation around the device may be seen. Foreign bodies in bladder can cause recurrent urinary tract infection (UTI), hematuria, stone formation and pelvic pain. Transvesical migration of forgotten contraception devices is a rarely seen complication. We

report a 37 years old woman with a migrated IUD into the bladder and stone formation on the device.

CASE REPORT

A 37 years old woman with abdominal pain, dysuria and hematuria which were ongoing for two days, referred to our emergency department. In her medical history, 15 years ago she was replaced IUD but after 2 months, with the complaint of the delay of menstrual bleeding she was diagnosed to be pregnant and was told that her IUD was dropped off. She had a child by vaginal delivery. She had been pregnant twice more and had healthy pregnancies and deliveries. Furthermore for last five years she had recurrent urinary tract infections, had medical treatments in different health centers, and her infections had been cured. In physical examination fever is 38°C, blood pressure is 90/60 mm/Hg, pulse is 88 bpm, tenderness in abdomen and suprapubic area is present. Leucocytosis (WBC 15800/mm³), C-reactive protein is high (8.09 mg/dL (normal is <0.5 mg/dL)), other biochemical tests are normal, in urinalysis abundant leucocytes and bacteria, 6-7 erythrocyte is present, E.coli proliferated in urinary culture (>100 000 CFU/mL). In kidney urinary bladder graphy (KUB) a T-shaped opacity resembling IUD is seen and also in abdominal ultrasonography (USG) a negative shaded hyperechoic image resembling IUD is seen in the bladder (**Figure 1**).



Figure 1: Image of migrated IUD in USG.

Computerized tomography (CT) showed IUD which perforated uterus and migrated to bladder (**Figure 2**).

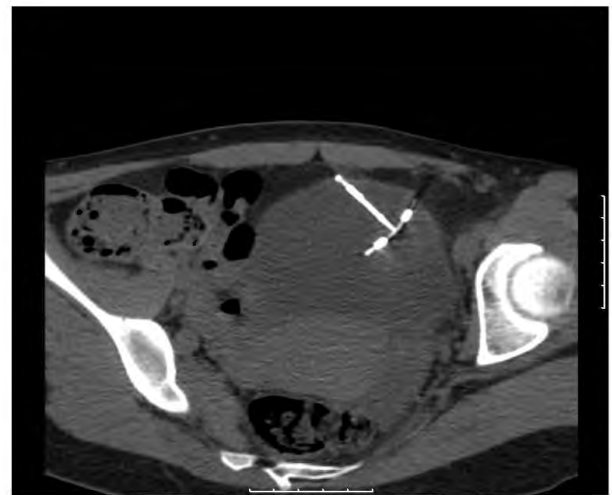


Figure 2: Image of migrated IUD in CT section.

Patient was internalized with these findings. Fever decreased and general condition was better during follow up with medical treatment and a cystoscopy was planned. In cystoscopy which was performed under general anesthesia, there was an IUD migrated into the bladder at the right lateral wall conjunction and both ends were impacted into the wall. IUD was extracted

completely with a foreign body forceps during cystoscopy (**Figure 3**).

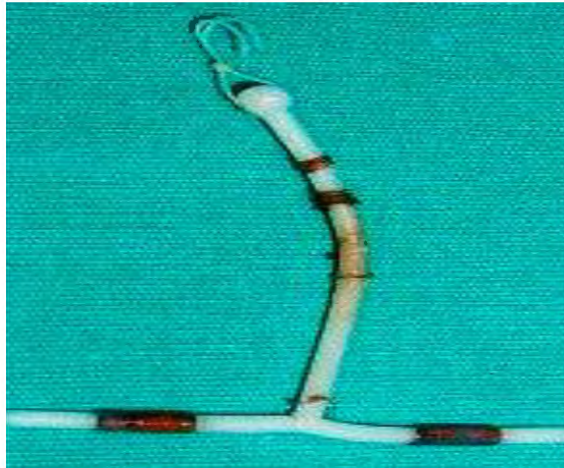


Figure 3: Migrated IUD after the xtraction from the bladder.

Foley catheter 18 F was placed via urethra and then the procedure was finished. To prevent vesiculo-uterin fistul formation after the operation, patient was followed up with urethral catheter for a week and then catheter was taken off after a cystographic evaluation confirming no fistula.

DISCUSSION

Total or partial migration of contraceptive IUD into the abdominal cavity or neighboring organs is a rare side effect. Rarely seen IUD complications are; spontaneous abortus, PID, uterine perforation, dysmenorrhea, pain, bleeding and unexpected pregnancy (1,2,3). Spontaneous abortus ratio is twice and PID risk is 10-13% higher in persons with IUD. Uterine perforation is a rare condition, only in 0-1,6 case in 1000 IUD perforation is seen (4,5). Congenital uterine abnormalities, cervical abnormalities, uterine operations, position abnormalities, curettage, breast feeding, lactation are risk factors for uterine perforation (4,6,7,8).

The mechanism responsible for migration of IUD is not known. Uterine perforation risk is directly related to

experience and ability of person replacing IUD. Furthermore, in women who have a history of C-section, uterine wall gets thin and risk of perforation may increase (5). IUD causes uterine perforation by two ways, firstly when IUD is placed a severe abdominal pain is seen; pression of IUD to uterine wall causes a necrosis and this results with perforation (9). Uterine cramps easies perforation.

Few case reports are present in our country related to this topic. Akgül and colleagues reported a case similar to our case, a 27 years old patient in whom an IUD migrated to bladder and stone formation was present (10). Kandıralı and colleagues reported a patient in whom urethral stone formation was present (11). In a case reported by Mutlu and colleagues a 33 years old woman was seen in urology outpatient clinic with complaints of undefined, chronical abdominal pain. She has had an abdominal pain after coitus. After detailed evaluation, it was demonstrated that IUD has caused a fistula between bladder and uterus resulted bleeding into the bladder (12).

Incidence of uterine perforation caused by pelvic or abdominal cavity or neighboring organs is 1-3 in 1000 cases (6). IUD migrated into the bladder can be removed endoscopically or with open surgery. Open surgery is usually performed for removal of stones seen over IUD however, improvements of lithotripsy devices caused decrease in patients need of open surgery. However, urologists have to more careful in such endoscopic procedures especially in extracting IUD which impacted to the bladder wall.

In young females bladder stone is rare, its seen in old men because of prostatic obstruction (6,7,8). Usually a bladder stone forms around IUD. The degree of stone formation and amount is not related to IUD migration time (9). Stone formation has been reported after six months of bladder perforation (6). As a conclusion persistent dysfunctional

urination symptoms seen in women with IUD, the migration of device into the bladder should be kept in mind.

REFERENCES

- 1)Eskandar OS, Eckford SD. Intravesical migration of a GyneFix intrauterine device. *J Fam Plann Reprod Health Care* 2003; 29(4): 237-8.
- 2)Li HQ, Feng ZC, Wang YB, Han YL, Van Kets H, Wildemeersch D,Performance of the frameless IUD (Flexigard prototype inserter) and the T Cu380A after six years as part of a WHO multicenterrandomized comparative clinical trial in parous women. *Adv in Contraception* 1999; 15: 201-209.
- 3)Curtis KM, Chrisman CE, Peterson HB. Contraception for Women in Selected Circumstances. *Obstet Gynecol* 2002; 99: 1100-12.
- 4)Andersson K, Ryde-Blomqvist E, Lindell K, Odland V, Misom I. Perforations with intrauterine devices. Report from a Swedish Survey. *Contraception* 1998; 57(4): 251-5.
- 5)Caspi B, Rabinerson D, Appelman Z, Kaplan B. Penetration of the bladder by a perforating intrauterine contraceptive device: a sonographic diagnosis. *Ultrasound Obstet Gynecol* 1996; 7(6): 458-60.
- 6)Zakin, David. Perforation of the Bladder by the Intrauterine Device . *Obstetrical Gynecolo Surv* 1984; 39(2): 59-66.
- 7)Chi IC, Kelly E. Is lactation a risk factor of IUD and sterilization related uterine perforation? A hypothesis. *Int J Gynaecol Obstet* 1984; 22(4): 315-7.
- 8)Atakan H. Kaplan M, Ertürk E. Intravesical migration of intrauterine device resulting in stone formation. *Urology* 2002; 60(5):911.
- 9)Rafique, M. Rauf, N. Khan, A., Haque, T.U. An unusual cause of vesical stone: a migrant intrauterine device. *The Eur J of Contraception and Reprod. Health Care* 2003; 8:170-172.
- 10)Akgul T, Yalcin K, Polat O, Ayyıldız A, Germiyanoglu C. Mesaneye rahim içi arac migrasyonu ve mesane taşı. *Türk J Urol* 2007; 33 (3): 360-361.
- 11)Kandırallı E, Topcuoglu MA, Semercioz A, Metin A. Double Intrauterine Device: Presented With Protruding Urethral Stone. *MMJ* 2008; 21(1):23-27.
- 12)Mutlu B, Gürbüz N, Sonmezay E, Taşçı AI. *Yeni Uroloji Dergisi* 2011; 6(1): 51-54.