

Intravesical Stone Following IUD Trans Utero-Vesical

Salifou Traore^{1*}, Ousmane Dembélé¹, Soumaila Traore³, SISSOKO Falaye¹, Sebou Koné¹, Soya Touré¹, Laya Niangaly¹, Kateneme S Ouattara¹, Oumar Berthé¹, Siaka Coulibaly¹, Aly B Diallo², Ternan Traore², Abdoulaye Sanogo⁵, Abdou Dolo⁶, Djeneba Maiga⁶, Ange M Dembélé⁵, Bathio Traore³, Moussa Kanté⁴, Moussa Diassana³, Dadé B Haidara⁶ and Madou Traore⁶

¹Service of urology/Sikasso. Hospital, Mali.

²Service of General surgery /Sikasso Hôpital, Mali.

³Service of Gynaeco-obstetric/ Sikasso. Hospital, Mali.

⁴Service of Anesthesia and resuscitation / Sikasso Hospital, Mali.

⁵Service of Radiology-imagery Sikasso Hospital, Mali.

⁶Service of Internal Medicine/ Sikasso Hospital, Mali.

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***Correspondence:**

Dr. Salifou Issiaka TRAORE Urologist MD PhD. Urology, Sikasso Hôpital, Mali.

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ABSTRACT

Background: Intravesical lithogenesis following IUD intrauterine device migration is a serious complication which has been rarely reported.

Case Report: Here in, we report the case of 46 aged woman, 7th gestation and 7th parity, who started with periodic complains of pollakiuria, burning and urgenturia 6 months after IUD insertion. Ultrasonography and Plain abdominal X ray evoked an intra bladder T device witch branch was enclosed by lithiasis. Referred to the hospital for proper management, the diagnostic confirmation has been done by ureterocystoscopy. A cystolithotomy was performed and post operatory follow up has been uneventful. Rapid specialized management is advisable face to IUD cord missing, especially when this is associated to LUTS (low urinary tract syndrome).

Keywords

IUD, Stone, Migration, LUTS, Cystolithotomy.

Introduction

The intra uterine device IUD is presently the most worldwide used female contraceptive method [1]. This is probably because of its ease of access, its tolerance and its efficiency. However, studies have shown complications following IUD insertion like IUD migration in adjacent organs. According to concerned organ, that migration could lead to some complications which can compromise life quality and even the vital prognosis we are reporting a case of IUD trans utero-vesical migration which have been complicated by stone formation.

Case Report

Mrs XX 46yrs old ,7th gestation 7th parity, household wife, native

of rural commune situated at 30km far from sikasso city. Has been referred to us from the referral health care center CSREF of sikasso for possible Intravesical stone associated to the migration of IUD.

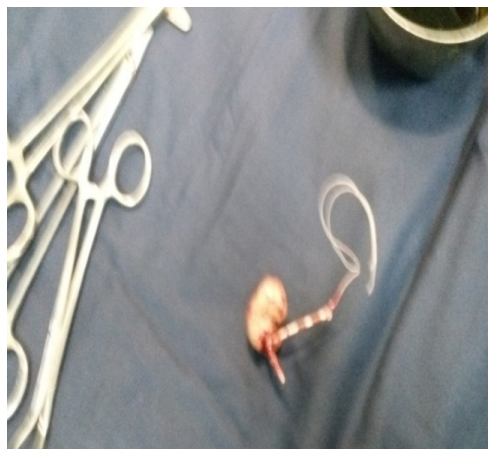
She gave birth normally to a full-term baby after hard labor and benefited 20 months post partum to the insertion of an IUD during a contraception Campaign organized by the mobile team of Malian association for the promotion of family planning (MAPFP) in May 2015.

A control checkup, carried out 3 weeks after the insertion, confirmed retrieval string missing and concluded to probable rejection of T device during menstruation. Six months after IUD insertion, she started with the complaint of pollakiuria, burning and urgency when pass out urine which have been treated as a banal cystitis. However, with the association of symptoms such as: violent hypogastric pain,

total hematuria and acute urine retention, she has finally sought for consultation at CSREF in June 2018. Ultrasonography examination and abdominal plain x ray, have revealed the presence of an object seems like T shape IUD inside bladder and which arm is enclosed by stone (Picture 1). Referred to the hospital for appropriate care. Physical examination finds a conscious patient with satisfactory general health state. Flat and soft abdomen wall with defense on deep palpation of the hypogastrium. Gynecological examination reveals a normal size; anteverted and retroverted uterus with normal looking appendages; soft vagina without any bleeding or sign of urine leakage. Urinary analysis revealed an infection of *E.coli* sensitive to imipenem, cefoxitin or gentamycin. Urethrocystoscopic examination confirmed the diagnosis of intrabladder stone secondary to IUD trans utero-vesical migration. A cystolithotomy under loco regional anesthesia have been carried out on the 4th June 2018 and permit the extraction of copper T device witch branch was enclosed by yellowish, hard and rough surface stone (Picture 2). Intraoperative exploration has put in evidence a cloudy bladder content, a diffused inflammation of bladder mucosa and the absence of abnormal communication between the posterior wall of bladder and uterus. Postoperative follow up has been uneventful and this patient was released at postoperative 10th day just after the ablation of the urinary catheter.



Picture 1: Pelvic radiography showing an IUD in vesical area.



Picture 2: Image of extracted IUD with right arm encompassed by lithiasis and witness wire.

Discussion

The enthusiasm and popularization of this technique of female contraceptive method during these past 10yrs mostly rest on its accessibility, immediate and long duration action, its usage security, efficiency and short time of fertility recover. However, although it's common infectious complications, intrabladder migration of IUD secondary to uterine perforation is still rare [2]. Our observation is compliant to the literature, where during 3yrs activity, out of 4 patients admitted to the hospital for IUD extra uterine migration, only one case of intravesical migration have been identified, the 3 others being intra-abdominal migrations. Indeed, the mechanism of contraceptive copper T device rest on the fact that they prevent implantation by the maintain of continuous physical and chemical aggression inside the uterine cavity. In addition to the possibility of extra-uterine insertion of IUD. It could also occur spontaneously when T device migrated through weakened uterine wall secondary to continuous inflammatory and proteolytic enzymes actions, intermittent uterine contractions.

The most recognized contributing factors of uterus perforation are: the insertion of IUD in the immediate post-partum, high multiparity, breastfeeding and uterine retroversion or hyper ante flexion [3,4]. Taking account to the chronology of symptoms, the qualification and experience of the operator, we think that the likelihood of a concomitant perforation during IUD insertion seem to be low. On clinical point of view, this observation is similar to the literature [5,6]; just six months after insertion our patient started to have some manifestation such as: urine voiding burning, urgency and terminal hematuria. The gynecological examination performed during the first control revealed a soft abdomen; the uterus of normal size and position, soft vagina without any discharge and absence of witness wire at the cervix. The presence of recurrent low urinary tract syndrome during a year should attract our attention and therefore, refer this patient for diagnostic clarification and appropriate care. As suggested by other studies [7], the extended immersion of IUD in urine with the deposit of sediment and the maintains of infection, almost always lead to stone formation. The delay set up for stone formation is not certain, but we suppose that it is correlated to the period of apparition of signs like violent hypogastric pain, acute urinary retention and total hematuria. Although the diagnosis of intra vesical IUD complicated by stone formation has been evoked according to the ultrasonography and abdominal plain radiography, as in previous studies, the diagnosis confirmation has been mostly brought by urethrocystoscopic examination. Knowing that the current trend in the management of the intrabladder stone formation secondary to migrated IUD is ballistic lithotripsy through endoscopic voice, following by the extraction of device [8]. We preferred the choice of open cystolithotomy, given the inadequacy of the technical platform and for fear of not omitting a vesico-uterine fistula.

Conclusion

Intra-bladder stone following migrated IUD is a rare complication of IUD insertion. The absence of retrieval string associated with

LUTS should suggest this complication and therefore quickly seek the assistance of specialists for early diagnostic confirmation and management. Open cystolithotomy is an invasive process, but in our context, it remains an effective and reliable alternative for the management of the bladder stone complication following mislocated IUD.

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