Case Report

Spontaneously expelled IUD and missing fragments in the uterine cavity

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\textbf{ARTICLE INFO}

\textbf{Article history:}
Received 24 June 2020
Revised 30 June 2020
Accepted 1 July 2020

\textbf{Keywords:}
Contraception
Intrauterine device
Mechanical complication

\textbf{ABSTRACT}

The mechanical complications of IUD are so rare. We report a case of 36-year-old women who was spontaneously expelled IUD with missing fragments of copper IUD within the endometrial cavity. She underwent pelvic ultrasonography and Pelvic X-ray. Two missing pieces of IUD was removed using a grasping forceps intrauterine under ultrasound. Despite the rarity of mechanical complications, it is important to know whether precautions can prevent or reduce the risks of IUD use for contraception.

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\section*{Introduction}

The high level of effectiveness of IUDs linked to their good tolerance and long duration of action as well as the safety of the method justify their use regardless of age or parity and should overcome the reluctance of clinicians provided that certain risk factors are taken into account [1].

Upon the IUD removal or spontaneously expelled, the missing fragments of copper from the body or one arm of the device is a scarce mechanical complication of IUD [2].

Provide an update on the mechanical complication of intrauterine devices (IUDs) based on a case report and review of the literature.

\section*{Case report}

A 36-year-old woman, G2P2, had been C-section in 2 times 2013 and 2016. The patient reported that her menstrual cycle had always been regular, without significant pain or excessive menstruation. She denied any history of abnormal Pap smears or sexually transmitted infections. The patient had a copper IUD inserted in a gynecology clinic for 3 years previously from June 2017.

She presented for a spontaneously expelled of IUD in June 6, 2020, just the long arm of the device with the copper wire (Fig. 1).
On gross gynecological examination, it was noted that no pain or abnormal vaginal secretion or bleeding.

She underwent pelvic ultrasonography which revealed a 2.5 cm posterior intramural myoma and 2 missing fragments of copper IUD within the endometrial cavity (1.49 cm and 7 mm) (Fig. 2).

Pelvic X-ray identified a 1 cm linear density in the pelvis as well as some phleboliths (Fig. 3).

The images were reviewed and the patient was counseled for the removal of the retained fragments given the propensity of copper. 2 small pieces of IUD were removed using a grasping forceps intrauterine under ultrasound with minimal force.

Ultrasound examinations immediately after removal showed no missing fragments.

Consent to publish these images was obtained from the patient.

**Discussion**

Cases have been reported in the literature of IUD fractures at the time of removal or expulsion [3,4]. There is no data on the consequences of leaving an IUD fragment retained in the uterus, but one can imagine the possibility of occurrence of pain, bleeding and even infertility. Therefore to locate the fragment retained, we can do an ultrasound first intention but if the fragment is not visible then we can carry out a hysteroscopy [4].

Pelvic ultrasound is the first-line examination to visualize the position of the IUD in the uterine cavity. 3D ultrasound allows better localization of the IUD’s position and correctly diagnoses myometrial perforation of one of its branches [4].

Removal of the fragment can be done with a grasping forceps intrauterine (under ultrasound or hysteroscopic control) or by suction (manual or electric) [5].

Despite the rarity of mechanical complications, it is necessary to know whether precautions can prevent or reduce the risks of IUD use for contraception [1,5].

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**Fig. 1 – The long arm of the IUD with the copper wire.**

**Fig. 2 – Pelvic ultrasonography: 2 missing fragments of a copper IUD within the endometrial cavity and posterior intramural myoma.**
Conclusion

The extreme rarity of complications during IUD insertion and removal should not alarm patients and practitioners unnecessarily, but justifies the provision of this information.

REFERENCES

[1] Faucher P, Hassoun D. Morbidité des dispositifs intra-utérins Paris. Collège national des gynécologues et obstétriciens français 2014:595–637.

[2] Yadava RP. Increase in IUD expulsions [Letter]. J Fam Plann Reprod Health Care 2007;33:133.

[3] Homouda K. The effect of intrauterine device position and performance of a modified TCu380A insertion technique. Eur J Contracept Reprod Health Care 2002;7:31–5.

[4] Wilson S, Tan G, Baylson M, Schreiber C. Controversies in family planning: how to manage a fractured IUD. Contraception 2013;88:599.

[5] Benacerraf BR, Shipp TD, Bromley B. Three-dimensional ultrasound detection of abnormally located intrauterine contraceptive devices which are a source of pelvic pain and abnormal bleeding. Ultrasound Obstet Gynecol 2009;34:110–15.