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Case Report

Asymptomatic presentation of silent uterine perforation by Cu-T 380A: a case report with review of literature

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ABSTRACT

Copper containing intrauterine contraceptive device are used worldwide and considered to be safe, effective, reversible and long term method of birth control. While IUCDs are tolerated well by most of the women, they are also associated with adverse effects like bleeding and dysmenorrhea. Uterine perforation during Cu-T insertion is one of the rarest complications and 30% of which are asymptomatic and can be presented with serious complications if not diagnosed early. This complication can be avoided if proper techniques are used by gynaecologists and health professionals. Education and counseling of the women about feeling the IUCD string after every menstrual cycle and post insertion of IUCD is equally important to facilitate the early detection of misplaced IUCD to prevent serious complications like uterine perforation.

Keywords: Cu-T 380A, Silent uterine perforation, Asymptomatic, IUCD

INTRODUCTION

Copper containing intrauterine contraceptive devices are very safe, reversible, long term and most effective method of birth control all over the world. Worldwide more than 150 million women are using IUCD for family planning.¹ The proportion of IUCD users among married or cohabitating women of reproductive age is nearly 2 fold higher in the developing world (14.5% than developed world 7.6%).²

Though uterine contraceptive devices have been very well tolerated by most of the females, but they are also associated with the adverse effects like bleeding and dysmenorrhea. This is one of the reasons why 10% of women discontinue IUCD in the first year of the use.¹² The rarest complications are ectopic pregnancy and uterine perforation.

The risk of uterine perforation in pelvic organ during insertion of Cu-T 380A has been reported in 1 out of

1000 insertion⁴. In few cases Cu-T 380A was not only associated with uterine perforation but also injured and perforated mesentery, sigmoid colon, small intestine, urinary bladder. In rare cases it can migrate to other part of abdominal cavity.⁶⁻⁸ We hereby report a case of asymptomatic presentation of silent uterine perforation by Cu-T 380A.

CASE REPORT

A 26 year old female para 3, live 3 presented in family planning clinic with the history of not being able to feel Cu-T string during self-examination. She had last child birth 1 year back and was breast feeding. She had first menstruation after delivery 3 months back when Cu-T was inserted on 6th day of menses by auxiliary nurse midwife at PHC.

Her menstrual cycle was regular since Cu-T insertion. She did not have any bowel and bladder complaints. Her Vital parameters were normal.

On clinical examination her abdomen was soft and non-tender. Per speculum examination string of Cu-T was not visualized. On per vaginal examination uterus size was normal and adnexa were non tender. Her routine biochemical tests and hematological counts were normal. On plain x-ray of pelvis with uterine sound showed Cu-T far away from uterine cavity (Figure 1). On transvaginal ultrasound Cu-T was seen outside the uterine cavity but very close to left ovary.

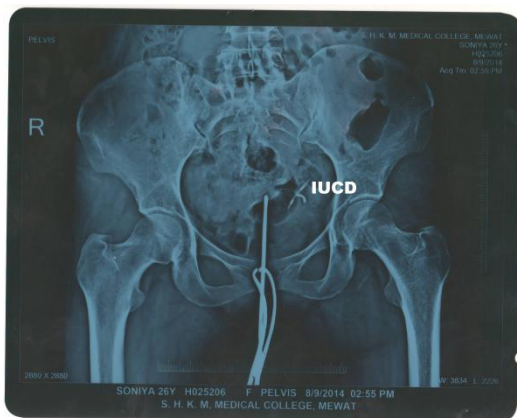


Figure 1: X-ray pelvis with uterine sound.

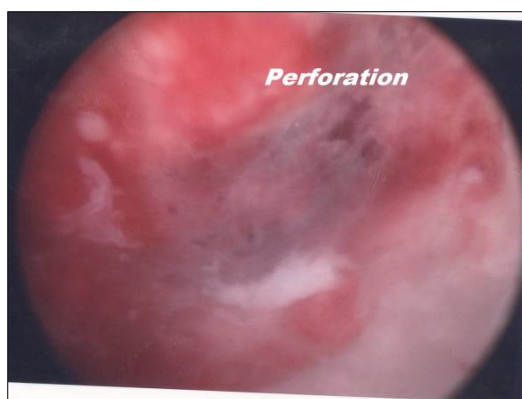


Figure 2: Hysteroscopic view showing perforation.

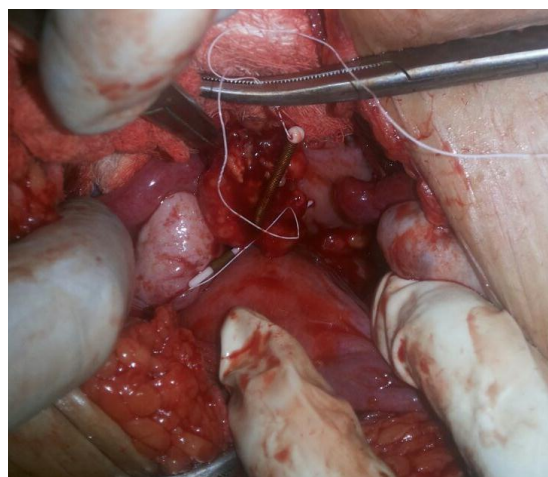


Figure 3: Removal of IUCD.

Following the above investigations, endoscopic intervention was planned. On hysteroscopy Cu-T was absent in uterine cavity but there was injury mark in posterior wall of the uterus (Figure 2). In view of probability of adhesion, decision of exploratory laparotomy was taken. On exploratory laparotomy Cu-T was present on left side in pouch of Douglas engulfed by left tube, ovary, omentum and small intestine associated with inflammation and flimsy adhesions. At first adhesionolysis was done and Cu-T was removed. Then bowel was inspected for any injury and bleeding vessels in omentum were ligated. As the patient had completed her family & was willing for tubectomy, bilateral tubal ligation was performed and the patient recovered well postoperatively.

DISCUSSION

Insertion of IUCD is now the second most prevalent method of family planning used worldwide (13.6%) after female sterilization (20%) among the women of reproductive age.² However sometimes it is associated with rare complications like uterine perforation. Uterine perforation by IUCD is of two types i.e. complete and incomplete. Whereas in complete perforation IUCD penetrates to full thickness of uterine wall (endometrium, myometrium and serosa) and found outside uterine cavity, whereas in partial perforation IUCD is found embedded in myometrium and endometrium but remains inside the uterine cavity⁹. This case reports the complete uterine perforation where the IUCD was found in left side of pouch of Douglas.

Risk of the perforation is highest at the time of the insertion especially in the postpartum and lactating women.^{5,6,10} Most of the cases of uterine perforation are presented with abdominal pain and bleeding, however 30% of the cases reported are asymptomatic.⁸ The case being discussed in this report is asymptomatic where the patient did not have any complaint during or after insertion of Cu-T.

The IUCD thread sometimes may not be felt during self-examination due to the thread retraction, expulsion and perforation. In this case the thread was not felt by the patient during self-examination, which led the patient to come for the clinical examination.

The duration between the insertion and appearance of the symptoms of perforation has been reported to vary from 6 months to 16 years.¹⁴ In this case since the patient was counseled well to check the string after each menstrual cycle and not being able to feel the string, raised suspicion in the mind of the patient, which led the diagnosis of this case within 3 months of the insertion. Early diagnosis of the case could be reason of the patient being asymptomatic.

The perforation by Copper containing IUCD causes inflammatory reaction due to release of cytokine and degradation of extra cellular matrix. This inflammatory

reaction is responsible for adhesion, intestine obstruction, fistula and abscess formation. Sometimes IUCD can directly cause injury to small intestine, sigmoid colon, rectum, adnexa and urinary bladder. In the case being discussed here, inflammation and adhesion between intestine, omentum, ovary and fallopian tube was observed.

Risk of uterine perforation by an IUCD is associated with various factors like inexperience of the performer, insertion during puerperium and lactation, cervical stenosis, retroverted and retrofix uterus. In this case, the patient was lactating but had first menstruation after 9 months of delivery and IUCD was inserted, following which she had regular menstruation.

CONCLUSION

It is very important for gynecologists and health professionals to use the proper technique of IUCD insertion. Thorough gynecological examination is required along with uterine sounding to assess the uterocervical length and direction of the uterus. During IUCD insertion, optimum force should be applied and withdrawal technique should be used to insert the IUCD. It is imperative to educate and counsel the women about feeling the IUCD string after every menstruation cycle and post insertion of IUCD, regular follow-up is required after 1 month, 3 months and yearly thereafter, to facilitate the early detection of misplaced IUCD and to prevent serious complications.

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REFERENCES

1. Brigid Fitzgerald Reading. Growth in world contraceptive use stalling; 215 million women's needs still unmet. Earth Policy Institute, 2012. Available at: http://www.earth-policy.org/data_highlights/2012/highlights26. Accessed 4 October 2013.
2. United Nations. Department of Economic and Social Affairs. Population Division. World contraceptive use 2005, 2006. Available at: <http://www.un.org/esa/population/publications/contraceptive2005/WCU2005.htm>.
3. Sonfield Adam. Popularity disparity: attitudes about the IUD in Europe and the United States. *Guttmacher Policy Rev.* 2007;10(4):19-24.
4. Heartwell SF, Schlesselman S. Risk of Uterine perforation among users of intra uterine device. *Obstet Gynaecol.* 1983;61:31-6.
5. Chi IC, Kelly E. Is lactation a risk factor of IUD- and sterilization-related uterine perforation? A hypothesis. *Int J Gynaecol Obstet.* 1984 Aug;22(4):315-7.
6. World Health Organization (WHO). Mechanism of action, safety and efficacy of intrauterine devices. In: WHO, eds. *Report of a WHO Scientific Group: Technical report series 753.* Geneva: World Health Organization; 1987: 22.
7. K. Van Houdenhovena T, K. J. A. F. van Kaamb, A. C. van Grootheestc, T. H. B. Salemansd, G. A. J. Dunselmanb. Uterine perforation in women using a levonorgestrel-releasing intrauterine system. *Contraception.* 2006;73:257-60.
8. Kaislasuo J, Suhonen S, Gissler M, Lähteenmäki P, Heikinheimo O. Uterine perforation caused by intrauterine devices: clinical course and treatment. *Hum Reprod.* 2013 Jun;28(6):1546-51.
9. Zakin D, Stern WZ, Rosenblatt R. Complete and partial uterine perforation and embedding following insertion of intrauterine devices: Classification, complications, mechanism, incidence, and missing string. *Obstet Gynaecol Surv.* 1981;36:335-53.
10. Chi IC, Potts M, Wilkens L, Champion CB. Performance of the TCu380A device in breastfeeding and non-breastfeeding women. *Contraception.* 1989;39:603-18.
11. Buhling KJ, Zite NB, Lotke P, Black K. INTRA Writing Group. Worldwide use of intrauterine contraception: a review. *Contraception.* 2014 Mar;89(3):162-73.
12. ESHRE Capri Workshop Group. Intrauterine devices and intrauterine systems. *Hum Reprod Update.* 2008 May-Jun;14(3):197-208.
13. Hubacher D, Reyes V, Lillo S, Pierre-Louis B, Zepeda A, Chen PL, et al. Preventing copper intrauterine device removals due to side effects among first-time users: randomized trial to study the effect of prophylactic ibuprofen. *Hum Reprod.* 2006;21:1467-72.
14. Istanbuluoglu MO, Ozcimen EE, Ozturk B. Bladder perforation related to intrauterine device. *J Chin Med Assoc.* 2008;71:207-9.

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