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

Sunder Pal Singh*, Divya Mangla, Jyoti Chawan, Anam Ul Haq

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. 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%).

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. 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 insertion. 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. 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.

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 filmy 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. 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 cavity. 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. Most of the cases of uterine perforation are presented with abdominal pain and bleeding, however 30% of the cases reported are asymptomatic. 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 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 discussion 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 retroflex 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