

## Case Report

# IUCD Threads Acting as Uterine Foreign Body Following Removal of Intrauterine Contraceptive Device

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**ABSTRACT**

Most published reports on intrauterine foreign bodies involve retained bony fragments after abortion, causing menstrual disturbances and

infertility. But IUCD threads acting as uterine foreign body after removal of the contraceptive device is reported for the first time.

KEY WORDS: foreign body, intrauterine device, perforation, uterus

**INTRODUCTION**

IUCD (intra-uterine contraceptive device) is a widely used method of birth control with 99% effectiveness. The IUCD once inserted is immediately effective as a contraceptive. According to a 1990 World Health Organization study, copper IUCDs have pregnancy rate ranging from 1% for three years to 1.6% for up to seven years.

The disadvantages or complications of IUCD are pain and cramps on insertion lasting for a day or two. Menstrual difficulties can be troublesome and are responsible for a removal rate of 5-15% within a year of insertion. An estimated 2-8% of IUCDs are expelled from the uterus within the first year, usually during the first three months after insertion. If the woman conceives with an IUCD in place, there is a greater risk for ectopic pregnancy, while the risk of miscarriage is three times that of the general population. However, if IUCD is removed soon after conception, then the risk is close to an average 20%<sup>[1]</sup>.

There is no evidence that the IUCD in pregnant women increases the risk for birth defects in the infant. The current IUCD string designs pose a far lower risk of infection but a higher risk is seen in women with multiple sexual partners. Uterine perforation is an uncommon but serious complication, occurring in less than one in a 1000 women, mostly at time of insertion<sup>[2-3]</sup>.

Here we are report a case that had double complications from IUCD insertion, namely, perforation and remaining IUCD threads acting as uterine foreign body.

**CASE REPORT**

A 40-year-old female, gravid 4, para 4 with all previous deliveries by Caesarean section (CS), presented with menorrhagia and dysmenorrhoea of a few months duration. The patient gave a history of NOVA T copper IUCD insertion seven years earlier. After the procedure, she complained of severe abdominal and back pain which were considered as normal consequences of the procedure. One month after insertion of IUCD, patient missed period with a positive pregnancy test. A possibility of IUCD expulsion was considered as pregnancy went uneventful and repeated obstetric ultrasound failed to show any IUCD echoes. However, at the time of delivery by CS, the IUCD was felt at the uterine fundus, penetrating uterine muscle and embedding itself in the sigmoid serosa and forming a fibrous band attaching the sigmoid to the uterus. The colon lumen was intact and the IUCD was removed easily by the surgeon.

Since patient was asymptomatic apart from failure to conceive for the last seven years, she did not seek any medical advice. However, for the last two months, she became symptomatic with menorrhagia and dysmenorrhea. She showed no abnormality during a general physical examination. The uterus was normal in size and shape with no restriction in mobility. Vaginal sonography showed possible endometrial and endocervical polyps (Fig. 1). She was then referred to a gynecologist for removal of the polyps. Surprisingly, no polyps were detected by hysteroscopy but there were two threads in the endometrial cavity, one extending

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Fig. 1: Ultrasound showing endocervical endometrial polyps



Fig. 2: The two threads that were removed hysteroscopically

into the endocervical canal (Fig. 2). Both were removed easily and the endometrial biopsy showed chronic endometritis on histology. At follow-up visit after six weeks, the patient was asymptomatic.

## DISCUSSION

IUCD is one of the most widely used methods for contraception. Although current IUCDs offer highly effective protection against pregnancy, they have complications and some of them can be potentially serious. Complications related to IUCDs include expulsion, device failure and risk of ectopic pregnancy, menstrual disturbances and pelvic inflammatory diseases. The complication reported here is perforation, which depends primarily on the skill of the inserter. On reviewing the literature, migration of the IUCD to other organs like the omentum, rectosigmoid, peritoneum, bladder with formation of a vesical calculus<sup>[4]</sup>, appendix, small bowel, adnexia or iliac veins has been reported. Most uterine foreign bodies act as a contraceptive device and are unusual causes of sterility<sup>[5]</sup>.

No similar complication of IUCD threads has been published during the last 30 years. There are some reports, although rare, of intrauterine foreign bodies acting as IUCDs and causing menorrhagia and sterility. The commonest foreign bodies were fetal bony fragments following abortion<sup>[5]</sup>. Other rare foreign bodies include chicken bones, fractured dilapan fragments and migrated needles.

This case is unique since we did not find similar case reports of IUCD threads themselves acting as uterine foreign bodies following removal of the device. The IUCD threads could not be removed during surgery either because they were deeply embedded or were not seen by the surgeon.

Different kinds of IUCDs are now available in the market with different types of threads attached to them. Previous concerns about IUCD threads were mainly related to dalkon shield brand of IUCD, in which the braided string acted like a wick,

leading to bacterial infection. The brand was banned after reports of several deaths and high rate of infection appeared in the literature. Modern IUCDs, on the other hand, do not carry this risk. However, it is important to be aware and make sure that the device is removed with the threads. As this case amply illustrates, if the threads are left inside, they can act as a foreign body and cause menstrual disorders and infertility in the future.

This case also demonstrates that IUCD perforation may go unnoticed at time of insertion<sup>[6,7]</sup>, and may pose a serious risk of complications<sup>[7]</sup>. Careful insertion technique may go a long way in avoiding them.

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