Case Report

Migration of an intrauterine contraceptive device to the sigmoid colon: a case report

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Abstract

Background Copper T intrauterine devices (IUDs) remain the mainstay of family planning measures in developing countries, but have been associated with serious complications such as bleeding, perforation and migration to adjacent organs or omentum. Although perforation of the uterus by an IUD is not uncommon, migration to the sigmoid colon is extremely rare. Here, we report a case of migration of an IUD to the sigmoid colon.

Case report A 40-year-old woman who had an IUD (Copper T), inserted 1 month after delivery, presented, 7 months later, with secondary amenorrhea and transient pelvic cramps. Clinical findings and ultrasonographic examinations of the patient revealed an 8-week pregnancy, while laboratory tests were normal. Transvaginal ultrasonography also visualized the IUD located outside the uterus, near the sigmoid colon, as if it were attached to the bowel. The pregnancy was terminated at the patient’s wish; a diagnostic laparoscopy was performed concomitantly, which showed bowel perforation owing to the migration of the IUD. The device, which was partially embedded in the sigmoid colon, was removed via laparoscopy; however, because of bowel perforation, laparotomy was performed to open colostomy.

Conclusion This case report highlights the continuing need for intra- and postinsertion vigilance, since even recent advances in IUD technique and technology do not guarantee risk-free insertion.

Keywords Intrauterine contraceptive device, Migration, Sigmoid colon

Introduction

The intrauterine device (IUD) is an effective and relatively safe contraceptive, with a continuation rate of up to 75% after 1 year1. The reported morbidity associated with long-term IUD use is low, although the incidence of specific complications varies with each device. For example, the Copper T remains the mainstay of family planning measures in developing countries but is associated with serious complications such as bleeding, pregnancy (both intrauterine or ectopic), perforation and migration to adjacent organs or omentum. Patients with a misplaced IUD may present with pregnancy or lost strings, or may remain

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asymptomatic for years. In their series, Barsaul and associates found 324 cases with a misplaced IUD, in which the IUD was found in the uterine cavity in 258 (79.3%) cases; in 47 cases (14.51%) it was removed from the cervical canal. In only 18 cases (5.56%) was the IUD translocated.

Although perforation of the uterus by an IUD is not uncommon, translocation to the peritoneal cavity of this type of IUD may provoke peritoneal or omental adhesions, volvulus, uterocutaneous fistula and bowel perforation, which involves significant morbidity. Here, we report a case of migration of an IUD to the sigmoid colon.

CASE REPORT

A 40-year-old woman (gravida 6, para 3) who had a Copper T IUD inserted 1 month after delivery, presented, after 7 months, with secondary amenorrhea and transient pelvic cramps. During the vaginal examination, the IUD string was not visible at the external os and the cervix was cyanotic and softened, which suggested the probable manifestations of pregnancy. Ultimately, ultrasonographic examination of the patient revealed an 8-week intrauterine pregnancy, while other clinical findings and laboratory tests were normal. Transvaginal ultrasonography also visualized an extraterine device located outside the uterus, near the sigmoid colon as if it were attached to the bowel (Figure 1). Consequently, following termination of the pregnancy at the patient’s request, a diagnostic laparoscopy was performed concomitantly, which showed bowel perforation because of the migration of the IUD next to the pregnant uterus (Figures 2 and 3). The device, which was partially embedded in the sigmoid colon, was removed via laparoscopy. However, laparotomy was performed to open colostomy afterwards because of bowel perforation. Colostomy reversal was performed successfully 2 weeks later and the patient was discharged without complication.

DISCUSSION

IUDs have been in use for many years, and migration from the uterus to the pelvic cavity has been reported. However, a review of the literature

Figure 1 Transvaginal ultrasonography demonstrates an intrauterine device located near the sigmoid colon as if it were attached to the bowel. RIA, intrauterine device (IUD); R, rectum; U, uterus; GS, gestational sac

Figure 2 Laparoscopic view of the intrauterine contraceptive device migration to the sigmoid colon next to the pregnant uterus

Figure 3 Laparoscopic view of the intrauterine contraceptive device after removal
revealed very few cases of perforation of the recto-
sigmoid by an IUD as in our case\textsuperscript{5–8}. An IUD may
perforate through the uterine wall into the pelvic or
abdominal cavity, or into adjacent organs. Numerous
factors may affect perforation. IUD-related factors
include the design and structural characteristics of the
device, as well as the nature and rigidity or plasticity of
the inserter. With regard to the patient, uterine size
and position, inherent anatomic configuration and
timing of the insertion relative to delivery or abortion
are all important determinants of potential perforation.
Although the incidence of uterine perforation varies
with the type of IUD, the incidence of IUD perfora-
tion has been estimated to be 0.87 per 1000 insertions\textsuperscript{9}.
Although some patients have signs and symptoms
suggestive of perforation, i.e. difficulty with insertion
resulting in pain or bleeding, many are apparently
asymptomatic at the time the diagnosis of perfora-
tion is made. Perforation is often suspected or diag-
nosed when the IUD string is no longer visible at
the external os. The patient who has sustained a
perforation is not protected against pregnancy, since
the IUD is not in the proper location, and occasionally
pregnancy is the condition that suggests that perfora-
tion may have taken place as in our case.

Once the diagnosis of an extrauterine IUD has been
made, the decision must be made whether to leave it
alone or remove it. There is still controversy among
researchers about such a situation. Markovitch and
associates\textsuperscript{9} suggest that, whilst surgical procedures
to remove a misplaced IUD must be performed on
symptomatic patients, asymptomatic patients, under
certain circumstances, may benefit from conservative
management. However, Demir and colleagues\textsuperscript{10}
concluded that, in cases of extrauterine but intra-
abdominal IUD, laparoscopic removal of the IUD
must be the first choice of therapy. Grimaldo and
co-workers\textsuperscript{11} also suggested immediate removal of the
device from the peritoneal cavity by either laparoscopy
or laparotomy with the utilization of prophylactic
antimicrobials for colon preparation before elective
surgery because this variety of IUD translocated to the
peritoneal cavity may provoke peritoneal or omental
adhesions, volvulus, uterocutaneous fistula and bowel
perforation, which involves a significant morbidity.

It is our opinion that an extrauterine IUD should be
removed as soon as possible after diagnosis, although
not necessarily on an emergency basis. Endoscopy
thus helps in the localization and retrieval of mis-
placed IUDs.

In conclusion, this case report highlights the con-
tinuing need for intra- and postinsertion vigilance
as even recent advances in IUD technique and tech-
nology do not guarantee risk-free insertion. Regular
follow-up of IUDs for visible threads would help in
the earlier detection of misplaced IUDs. Proper train-
ing of paramedical staff is mandatory in developing
countries to provide safe and better family planning
services.

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