

Case Report

Intraperitoneal Migration IUD Mimics Tumor of Rectosigmoid Colon

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Key Words

Intrauterine device;
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Abstract

Perforation of the uterus caused by intrauterine device (IUD) is a well-recognized complication. If the IUD becomes intraperitoneal, when perforation occurs through the uterine wall, it could induce gastrointestinal complications. But perforation of the rectosigmoid colon due to IUD was rare. We report a woman presenting the only sign of fecal occult blood positive. The intraperitoneal migration IUD mimics a tumor of rectosigmoid colon diagnosed by colonoscopy, barium enema and transvaginal ultrasonography. It was removed after exploratory laparotomy and anterior resection. The pathologic examination revealed an IUD, penetrating the wall of rectosigmoid colon, causing an inflammatory mass. The patient had an uneventful postoperative recovery.

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The intrauterine device (IUD) is an effective and relatively safe contraceptive device. However, the uterine perforation is not an uncommon complication of IUD use. It may be caused by immediate traumatic insertion or silent migration to extrauterine space. The perforated IUD is most often asymptomatic and the clinical symptoms depend on the injury of contiguous organ. The IUD complications involving the intestinal tract often presented as intestinal obstruction or perforation.¹ The treatment method for a perforating IUD should depend on the injured organ. We hereby present a rare case of intraperitoneal mass, mimicking the tumor of rectosigmoid colon, due to the perforated IUD.

Case Report

A 42-year-old female came to our hospital with fe-

cal occult blood positive, the only abnormal finding, was noted during an annual check-up. She had a history of IUD insertion 13 years ago. The digital examination revealed negative. However, an ulcerative tumor lesion (2 × 1 cm) was noted by colonoscopy, and the biopsy examination revealed colitis. The barium enema revealed a mass-like filling defect, about 3 cm in diameter, and 2 small radiopaque shadows in the junction of rectum and sigmoid colon (Fig. 1). No IUD in the uterus was noted by transvaginal ultrasonography. The exploratory laparotomy was performed under the impression of a migrated IUD with perforation of the rectosigmoid colon. The operative finding was a necrotic mass fixed to the rectosigmoid colon. After anterior resection, a Copper-T IUD was found embedded in the colonic wall with perforation and ulcer formation (Fig. 2). The pathological examination revealed a picture of inflammation. After operation the patient had an

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Fig. 1. The barium enema revealing a filling defect, about 3 cm in diameter, and 2 radiopaque shadows (black arrow) in the dorsal aspect of the rectosigmoid colon.

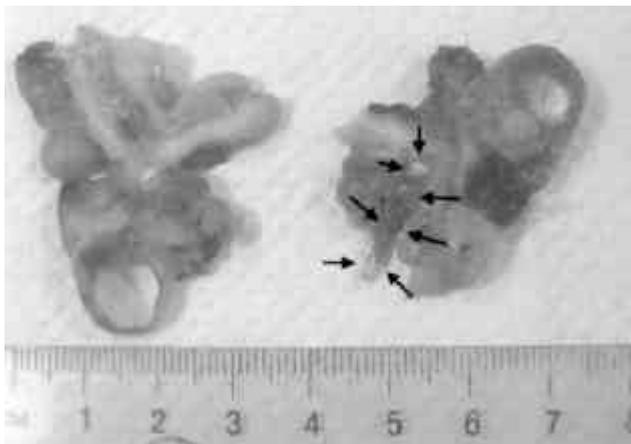


Fig. 2. The specimen showing an IUD (black arrows) within the colonic wall with perforation and ulcer formation.

uneventful postoperative recovery.

Discussion

The IUD is one of the most widely used forms of contraception throughout the world. Transuterine migration of IUD is a rare complication with a rate of approximately per 2500 insertions.² Numerous factors affect perforation such as the type of IUD, the uterine size and position. The mechanisms of perforation are

generally agreed that the embedded IUD exerts pressure broadly on the endometrium causing a kind of abrasion or erosion or pressure necrosis. Perforation by IUD can involve several neighboring organs such as the bladder and rectosigmoid colon. In a review of 356 case reports by Zakin et al., 41 were found to have complications involving the intestinal tract with 20 cases of perforation and 9 of these involved the rectosigmoid colon.¹ In 1995, Muller-Holzner et al. described 5 cases of IUD-associated pelvic actinomycosis.³ In our patient, we don't know when the perforation happened and the IUD might migrate gradually into the pelvis and cause the necrotic mass by perforating the rectosigmoid colon. No pathogen was noted by culture or by pathologic examination.

A painful IUD insertion and a missing string demand investigation for a partial or complete perforation.⁴ However, in most cases, the perforation is usually silent and unaccompanied by any direct manifestation.¹ It is important to be aware of even the rare possibility of such occurrences, particularly in the presence of unexplained fever, intestinal symptoms and urinary complaints.¹ In this case, with the history of IUD insertion for 13 years, the occult blood in stool was the only abnormal finding noted in the physical check-up. If an intraperitoneal migration IUD involved the rectosigmoid colon, fecal occult blood could be the first sign to arouse the physician facing the patient with history of IUD insertion. If the rectosigmoid colon is invaded by a migrated IUD, a colonoscopy will find the mucosal lesion. There may be an abnormal IUD shadow in KUB, barium enema or computed tomography. Transvaginal ultrasonography could be an investigation to make sure that there is no IUD inside the uterine. Uterine perforation is common among women with "lost" IUD which can cause severe morbidity and mortality and should be carefully managed. The recommended treatment is removal of the perforation IUD. In this case the anterior resection was performed and the patient had an uneventful postoperative recovery.

The symptoms and signs depend on the degree of injury.¹ Different kinds of IUD may induce different lesions of the intestinal tract. However, there are no supporting literatures to this opinion. In our patient,

only with fecal occult blood and ulcerative tumor lesion noted by colonoscopy, it might have missed the diagnosis without barium enema and transvaginal ultrasonography. We recommend that any female, who had the history of IUD insertion, present with colorectal lesion should be checked for the actual position of IUD.

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