

Laparoscopic Retrieval of a Displaced Intrauterine Device Presenting as Umbilicus Sinus

Diwakar Sahu¹, Kislaya Kumar Sao², Shiv Shankar Dubey³

ABSTRACT

Aim: To report a case of displaced intrauterine device (IUD), having unusual presentation, and signify the role of laparoscopy in the surgical management of migrated IUD.

Background: The IUD is a popular family planning method worldwide. Intrauterine device migration into the peritoneal cavity is a serious complication and requires surgical removal in the majority of cases. In most of the reported cases, retrieval was performed through laparotomy. Moreover, cases which were attempted laparoscopically, many of them later converted to open. Also, previously published articles have mentioned migration of IUD into rectosigmoid, urinary bladder, small intestine, iliac vessels, and other sites. Ours is a probably first reported case of displaced IUD presenting as discharging umbilical sinus and surgical retrieval performed via laparoscopic approach.

Case description: A 28-year-old woman presented with pain and discharge from umbilicus. Investigations revealed displaced IUD at the level of umbilicus. Patient underwent laparoscopy surgery and found to have displaced IUD, embedded in-between omental adhesion to umbilicus. Entire surgery was carried out laparoscopically and IUD removed. Patient had uneventful recovery after surgery.

Conclusion: Uterine perforation following IUD insertion is a rare but potentially serious complication. Accurate preoperative localization of displaced IUD is obligatory and helpful. Current practice is to surgically remove all displaced IUDs. Laparoscopic approach appears to be safe with advantage of faster recovery and good cosmesis.

Clinical significance: Our article will provide insight in erratic presentation of displaced IUD and further augment the role of laparoscopy in the management of such cases.

Keywords: Copper-T, Intrauterine device, Laparoscopy.

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BACKGROUND

Intrauterine device (IUD) is one of the most preferred contraception methods used worldwide due to low cost, reversibility, and long-lasting effect. Intrauterine device displacement and migration into the peritoneal cavity is a known and grave complication. The frequency of uterine perforation and IUD displacement ranges from 0.2 to 9.6 per thousand insertions.¹ Displaced IUD is a surgical emergency and requires prompt removal soon after diagnosis. Conventional approach is through laparotomy but numerous recent reports have described laparoscopy as a preferred technique.^{2,3}

To the best of our knowledge, we report the first case of an IUD displacement presenting as umbilical sinus and was managed successfully using laparoscopic approach.

CASE DESCRIPTION

A 28-year-old woman, parity and gravid 2, presented with pain and discharge from umbilicus since 3 months. Discharge was intermittent, serous in nature, mild in quantity and associated with throbbing pain, and erythema around umbilicus. Patient had a history of IUD (Copper-T A380) insertion 3 years ago, but strings were missing since 8 months. Patient underwent ultrasound and X-ray abdomen which showed foreign body at the level of umbilicus (Fig. 1). Routine blood investigation was performed which were within normal limit. She was subjected to laparoscopy surgery which showed omental adhesion just beneath umbilicus. Adhesions were released partially, revealing Copper-T entangled within adhesions. Further sharp and blunt dissection was carried out, thereby removing Copper-T (Fig. 2). No complications

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occurred during or after surgery and patient discharged on day 3 postoperatively. Patient follow-up period was uneventful.

DISCUSSION

Intrauterine devices are effective and reversible contraceptive method, especially in developing countries. Though considered safe, IUD insertions are associated with several complications, such as abdominal pain, infection, ectopic pregnancy, menorrhagia, and uterus perforation.² Displaced IUDs may lead to perforation of adjoining organs, such as rectum, colon, small intestine, urinary bladder, and very rarely appendix.^{4–6} Migration of IUD

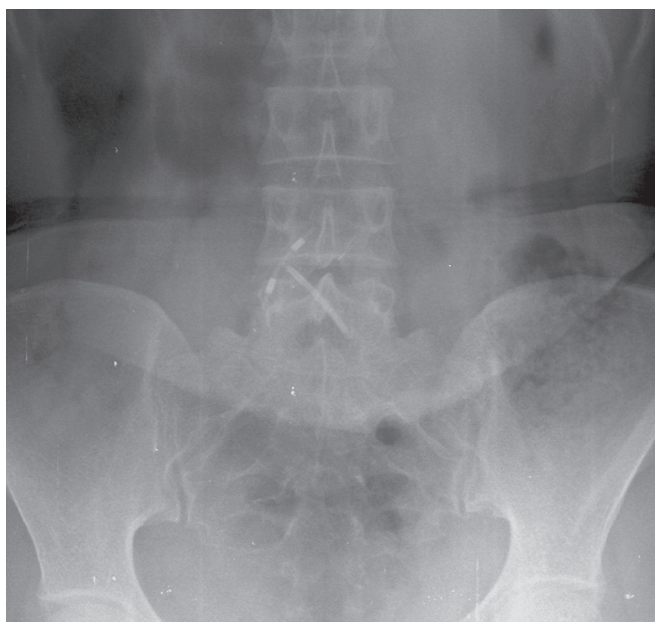


Fig. 1: X-ray abdomen showing displaced IUD at level of umbilicus

can be caused by traumatic insertion and chronic inflammation leading to erosion of uterine wall. Several factors may augment this migration which includes experience of operator, timing of insertion, congenital uterine anomalies, parity, and the position of the uterus.^{7,8} Intrauterine device insertion should be avoided during early postpartum period, in lactating mothers and just after abortion as uterus is in the state of involution.

A literature review by Gill et al. stated that displaced IUDs have been found in many locations, most common being omentum (26.7%), followed by pouch of Douglas, colonic lumen, myometrium, broad ligament, free within the abdomen, and small bowel serosa.⁸ In the present article, site of dislocation was just below umbilicus, in-between omental adhesion. Migrated IUD leads to foreign body reaction, thereby causing subumbilical inflammation and serous discharge.

Diagnosis is accomplished mainly by gynecological examination, ultrasound, and abdominal X-ray. CT scan is not necessary in all cases but it provides precise information, especially relation of IUD with migrated organ.³ As all IUDs are radiopaque, plane abdominal radiography is the preliminary method of evaluation. Precise location of IUD preoperatively with appropriate imaging will help in surgical planning and also predict the complexity of surgery.

The management of intraperitoneal IUDs in asymptomatic patients is somewhat controversial. The World Health Organization recommended that displaced IUDs should always be removed to prevent possible complications that can occur due to intraperitoneal adhesion formation or migration into adjacent organs.⁹

The standard management for a migrated intrauterine contraceptive device (IUCD) is surgical removal, either open or via laparoscopic approach. A review article by Mosley et al. revealed that majority (93.0%) of reported cases were attempted laparoscopically; however, 22.5% of these were converted to open procedures.⁷ The rate of conversion was found to vary according to the site of the displaced IUD. However, it must be noted that their review only included cases in which the IUD was located within the peritoneal cavity; cases with penetration into adjacent organs

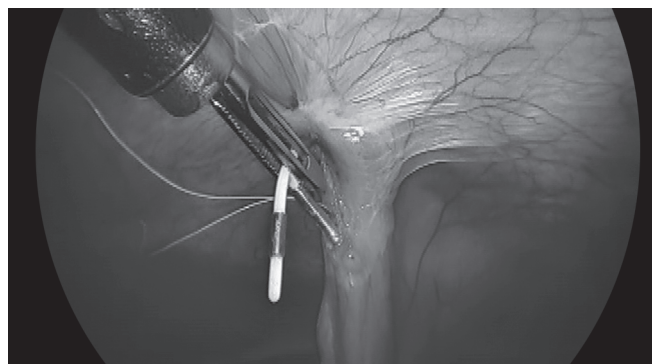


Fig. 2: Intraoperative image showing retrieval of IUD

were excluded. With advances in laparoscopy, these situations are being increasingly managed with minimally invasive techniques. Moreover, it is now considered as the first line of treatment in patients with a suspected migrated IUD.^{2,6,8} Laparotomy has many disadvantages, such as longer period of hospitalization, bigger scar formation, and has limited view during the surgery. Laparoscopy can overcome all these drawbacks and provide safe approach for dealing such cases.

CONCLUSION

Intrauterine contraceptive devices are the most popular form of reversible contraception. Uterine perforation following IUD insertion is a rare but potentially serious complication. Accurate preoperative localization of displaced IUD is obligatory and helpful. Current practice is to surgically remove all displaced IUDs. Laparoscopic approach appears to be safe with advantage of faster recovery and good cosmesis.

CLINICAL SIGNIFICANCE

Our article will provide insight in erratic presentation of displaced IUD and further augment the role of laparoscopy in the management of such cases.

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