Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Radiology

Intrauterine Device Migration into the Lumen of the Terminal Ileum: A Case Report (Diagnosed 34 Years after Insertion: A Case Report)

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DOI: 10.36347/sjmcr.2022.v10i07.021 | **Received:** 18.06.2022 | **Accepted:** 12.07.2022 | **Published:** 23.07.2022

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Abstract **Case Report**

Introduction: Ileal perforation due to intrauterine device (IUD) migration is rare situation, but severe complication that can occur years after the insertion. Depending on the location of the injured intestine. ***Case presentation:*** A 64-year-old female presented to the outpatient clinic with a dorsal pain the patient reported a history of a neglected spine trauma a x ray was performed showing a chance spine fracture of the D12 and a small metallic T shape foreign body in the right iliac fossa a CT scan showed an IUD like foreign body in the lumen of the terminal ileum. After these CT findings, the patient informed us that she had IUD inserted almost 34 years ago. The patient refused the surgery removal option. ***Conclusions****:* Perforation of IUD can be asymptomatic, although sometimes it can cause short-term or long-term symptoms. Penetrated IUDs should be removed whenever identified. For intra-abdominal penetrations, the laparoscopic or mini-laparotomy approach is a safe and appropriate method.

Keywords: Perforation, Intrauterine device, ileum, Migration, Missing IUD.

INTRODUCTION

Intrauterine devices are widely used, secured and effective birth control methods, The first modern intrauterine device (IUD) was introduced as early as 1909 [1]. Since then, IUD has become one of the world's most popular reversible methods of contraception accounting for 16.5% of birth control used in undeveloped countries [1].

IUD is usually placed and generally well-tolerated. However, side-effects and complications can occur. The most common are expulsion, malposition, strings not visible, abnormal bleeding, vaginal discharge, pelvic pain, infection, ectopic pregnancy, perforation through the uterine wall [2].

Uterine perforation occurs during IUD insertion and complicates about 1 in 1000 insertion procedures [3]. IUD migration and bowel perforation is unusual but serious complication which we found nearly fifteen bowel perforation cases described in literature these past 10 years.

The intestinal complications associated with IUD migration are the followings: obstruction, infarction, fistula formation, mesenteric injury, and perforation. IUD intestinal penetration in large part occurs in the sigmoid colon (40.4%), small intestine (21.3%), and rectum (21.3%) [3].

In this article, we will look into IUD migration to the splenic flexure of the large bowel. This work is in line with the SCARE criteria.

CASE REPORT

A 64-year-old female presented to the outpatient clinic with a dorsal pain, the patient reported a history of a neglected spine trauma a x ray was performed showing a chance spine fracture of the D12 and a small metallic T shape foreign body in the right iliac fossa (Fig 1). a CT scan showed an IUD like foreign body in the lumen of the terminal ileum (Fig 2 & 3). After these CT findings, the patient informed us that she had IUD inserted almost 34 years ago.

Fig 1: A pelvic X ray showed a T shaped metallic foreign body in the right iliac fossa

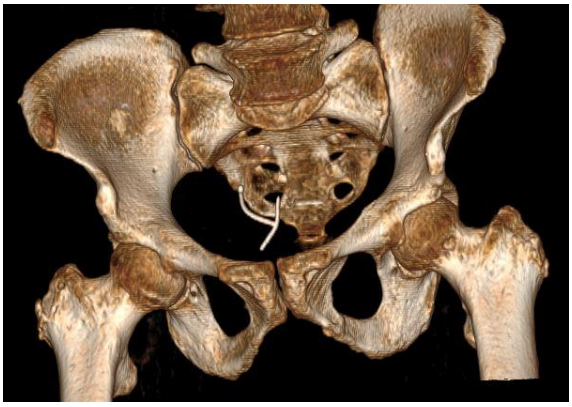

Fig 3: A 3D CT reconstruction showing a T shaped metallic foreign body in the right iliac fossa

Fig 3: Coronal, axial and sagittal reconstruction of a pelvic CT that shows an IUD like foreign body in the lumen of the terminal ileum, the vertical portion was protruding through the wall of the terminal ileum and the a part of the transversal part was in the intestinal lumen

After these CT findings, the patient informed us that she had IUD inserted almost 34 years ago. Two years after the procedure, she gave birth via natural way. The patient admitted that she did not seek any medical advice concerning IUD, because she thought it fell out.

The patient refused the medical proposition of the surgical team to perform a removal of through the laparoscopic or mini-laparotomy approach.

DISCUSSION

The IUD is a common birth control method. Although IUDs are commonly considered safe, they are occasionally associated with serious side effects end complications such as pelvic pain, bleeding, spotting, increased risk of pelvic inflammatory disease, and unexpected pregnancies [4].

Uterine perforation is an uncommon IUD complication. Risk factors for the uterine perforation include insufficient evaluation of the patients and the uterine anatomy, insertion at the postpartum period, uterine anomaly, inexperience in IUD insertion, retroverted uterus and breastfeeding [5]. The overall reported incidence of IUD perforation is about 0.87 per 1,000 insertions [6]. IUD migration into the peritoneal cavity and uterine structures is another rare complication of this contraception method.

We present our case because it is extremely rare. No similar cases were found after reviewing articles in over a period of ten years.

The mechanism of migration in this patient can be explained by the uterine enlargement during the patient's pregnancy. However, as stated by Takahashi *et al*., there is no past literature associating pregnancy as a risk factor for extrauterine IUD organ penetration [7].

In most cases associated with IUD migration, the patients do not express any symptoms and the device can remain there for many years [8, 9].

Depending on the location, serious complications occur in about 15 % of cases of IUD perforations [10].

To determine the location of the migrated IUD, different imaging modalities have been used. The transvaginal and transabdominal-ultrasonography approaches are useful methods for detecting IUD migration [11]. Abdominal X-ray is the preliminary modality for investigating IUD migration. Computed tomography is the best method for diagnosis of the exact localization of the migrated IUD [12, 13].

However, if there are no comorbidities, it is still recommended to remove any free foreign body in the abdominal cavity due to the possible adhesion formation that may cause small bowel obstruction or possible injuries to the adjacent organs [14].

CONCLUSION

The IUD is the most commonly used method of reversible contraception and is used by a mean of 23 percent of female contraceptive users worldwide, however various complications of this method can be seen. Computed tomography is the first choice for locating with extreme precision the missing IUD. Penetrated IUDs should be removed whenever identified [15].

REFERENCES

1. Richter, R. (1909). A means of preventing pregnancy. *Dtsch Med Wochenschr*, *35*, 1525-1527.
2. Heartwell, S. F., & Schlesselman, S. A. R. A. H. (1983). Risk of uterine perforation among users of intrauterine devices. *Obstetrics and gynecology*, *61*(1), 31-36.
3. Baakdah, H., Asswad, A. F., & Tulandi, T. (2005). Sigmoid penetration by an intrauterine device. *Journal of minimally invasive gynecology*, *12*(5), 384.
4. Arslan, A., Kanat-Pektas, M., Yesilyurt, H., & Bilge, U. (2009). Colon penetration by a copper intrauterine device: a case report with literature review. *Archives of gynecology and obstetrics*, *279*(3), 395-397.
5. Heinberg, E. M., McCoy, T. W., & Pasic, R. (2008). The perforated intrauterine device: endoscopic retrieval. *JSLS: Journal of the Society of Laparoendoscopic Surgeons*, *12*(1), 97.
6. Grimaldi, L., De Giorgio, F., Andreotta, P., D'Alessio, M. C., Piscicelli, C., & Pascali, V. L. (2005). Medicolegal aspects of an unusual uterine perforation with multiload-Cu 375R. *The American journal of forensic medicine and pathology*, *26*(4), 365-366.
7. Caliskan, E., Öztürk, N., Dilbaz, B. Ö., & Dilbaz, S. (2003). Analysis of risk factors associated with uterine perforation by intrauterine devices. *The European Journal of Contraception & Reproductive Health Care*, *8*(3), 150-155.
8. Tosun, M., Celik, H., Yavuz, E., & Çetinkaya, M. B. (2010). Intravesical migration of an intrauterine device detected in a pregnant woman. *Canadian Urological Association Journal*, *4*(5), E141-143.
9. Ozgun, M. T., Batukan, C., Serin, I. S., Ozcelik, B., Basbug, M., & Dolanbay, M. (2007). Surgical management of intra-abdominal mislocated intrauterine devices. *Contraception*, *75*(2), 96-100.
10. Takahashi, H., Puttler, K. M., Hong, C., & Ayzengart, A. L. (2014). Sigmoid colon penetration by an intrauterine device: a case report and literature review. *Military medicine*, *179*(1), e127-e129. doi: 10.7205/MILMED-D-13-00268.
11. Zakin, D., Stern, W. Z., & Rosenblatt, R. (1981). Complete and partial uterine perforation and embedding following insertion of intrauterine devices. II. Diagnostic methods, prevention, and management. *Obstetrical & gynecological survey*, *36*(8), 401-417.
12. Ye, H., Huang, S., Zhou, Q., Yu, J., Xi, C., Cao, L., ... & Gong, Z. (2018). Migration of a foreign body to the rectum: a case report and literature review. *Medicine*, *97*(28).
13. Sentilhes, L., Lefebvre-Lacoeuille, C., Poilblanc, M., & Descamps, P. (2008). Incidental finding of an intrauterine device in the sigmoid colon. *The European Journal of Contraception & Reproductive Health Care*, *13*(2), 212-214.
14. Ertopcu, K., Nayki, C., Ulug, P., Nayki, U., Gultekin, E., Donmez, A., & Yildirim, Y. (2015). Surgical removal of intra-abdominal intrauterine devices at one center in a 20-year period. *International Journal of Gynecology & Obstetrics*, *128*(1), 10-13.
15. Boortz, H. E., Margolis, D. J., Ragavendra, N., Patel, M. K., & Kadell, B. M. (2012). Migration of intrauterine devices: radiologic findings and implications for patient care. *Radiographics*, *32*(2), 335-352.