

Case report

Incidental detection of intrauterine device in sigmoid colon and its removal with colonoscopy

Bozdag A¹, Altas O², Sahin A³, Ozkan Z⁴

Abstract:

Intrauterine device (IUD) is one of the frequently used contraceptive methods in the developing countries, due to its high efficacy, low risks and low costs. However, it may cause some important complications. One of these complications is migration of IUD to adjacent organs. The migration of IUDs to sigmoid colon is rare and it is reported as case reports. In this article, we wanted to share the colonoscopic evaluation of a 38-year-old female patient who presented with chronic abdominal pain, meanwhile the detection of IUD in the sigmoid colon and its removal with colonoscopy.

Keywords: Intrauterine device;

Bangladesh Journal of Medical Science Vol. 16 No. 04 October'17. Page : 597-599

Introduction

Intrauterine devices (IUDs) are one of the contraceptive methods which provide long-term contraception. They are one of the most commonly used contraceptive methods, especially in the developing countries, due to their high efficacy, recyclability, low risks and low costs¹. Although insertion of IUD is easy and it is performed by many non-physician health care personnel, it is a method with more important complications such as uterine perforation and migration to adjacent organs in addition to pain, abnormal vaginal bleeding, pelvic inflammatory disease and unsuccessful contraception¹. Uterine perforation is reported to be 0.1% to 0.3%². Gynecological organs are first displacing localization, migration after perforation occurs to organs such as omentum, appendix, peritoneum and bladder³. Migration of intrauterine devices to sigmoid colon has been reported rarely and as case reports in the literature. We also present a case in which IUD was detected incidentally in sigmoid colon and was successfully treated with

colonoscopy.

Case

A 38-year-old female who was admitted to our outpatient had the complaints of pain in the lower abdomen and groin and change of bowel habits for several years. She did not benefit from previous treatments. She has not any chronic diseases or comorbidity. She has got IUD inserted for contraception seven years ago. The patient who had seven normal vaginal deliveries. The latest pregnancy was after IUD insertion and uneventful delivery. The physical examination revealed no tenderness, the anal and rectal digital examinations was normal. Colonoscopy was recommended since the complaints such as change in bowel habits, constipation were more predominant than pain and the abdominal ultrasonography of the patient was normal. The colonoscopy that was performed after colon cleansing and detected a foreign object in the lumen of sigmoid colon. It was thought to be partly impacted into the colon wall. Considering that foreign object was IUD, the patient was questioned

1. Ahmet Bozdag

2. Onder Altas

University of Medical Sciences, Elazig Training and Research Hospital, Department of General Surgery

3. Abdurrahman Sahin, Assoc Prof. Fırat University, Medical Faculty, Department of Gastroenterology

4. Zeynep Ozkan, University of Medical Sciences, Elazig Training and Research Hospital, Department of General Surgery

Correspondence to: Zeynep Ozkan, Medical Sciences University, Elazig Training and Research Hospital, Department of General Surgery, Rızaiye Street, İnönüBlvd–Elazig, Turkey, e-mail:drzeynepozkan@yahoo.com

again. She said those seven years ago, the IUD was inserted and despite this, she had a normal vaginal delivery and according to the explanation made by the gynecologist she was told that IUD might have fallen spontaneously. Whole colon was examined and no further pathology was detected, the IUD was removed with colonoscopic snare without any complication. (Figures 1 and 2)



Figure 1: Colonoscopic image of IUD that its big parts is in lumen of sigmoid colon.

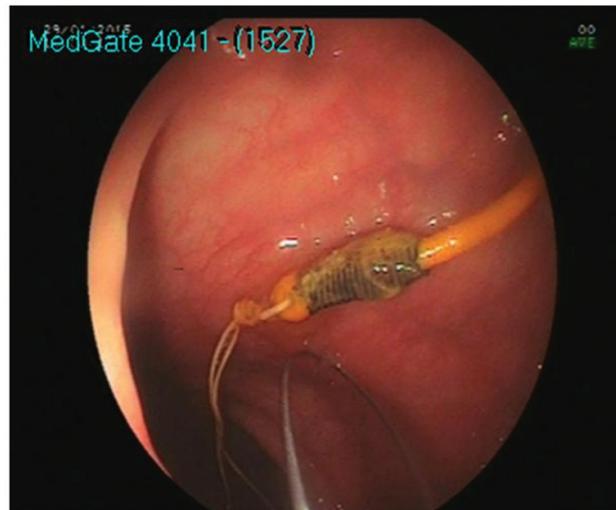


Figure 2: Colonoscopic removal of IUD assisted with snare.

The patient was followed up under antibiotic therapy for 48 hours at the hospital with daily physical examinations and laboratory controls. Patient's clinic was uneventful and she was discharged.

Ethical consent: Informed consent was obtained from the patient

Discussion

Uterine perforations which occur in the early period

after IUD insertion are usually associated with the experience of the clinician, immobilization of uterus, presence of myometrial defect and retrovert position of uterus are other factors affecting the development of perforation¹. The displacement of IUD may occur in late period, even after years. In a study, the possible mechanism of penetration of copper IUD into the colon was explained as the adhesion of IUD to pericolonic fat and the extension of local inflammation towards the lumen of colon over time. Another less accepted mechanism is that IUD is pushed physically into the sigmoid colon by the uterus which enlarges physiologically during patient's pregnancy⁴. The patients should be checked after insertion of IUD and its localization should be examined by sonography or radiography^{1,2}. In the literature, the mean age of the cases with migration of IUD to intestinal segments is around 30 years and the age range was reported as 20-43 years. Also, 76.5% of these cases were stated to be multiparous⁵. Our patient, in agreement with these results, was 38 years old and multiparous.

It is seen in the literature that uterus perforation and IUD migration secondary to IUD insertion are not associated with specific symptoms and signs. It may be clinically asymptomatic or it may involve pelvic pain and nonspecific complaints as in our patient or present with the findings of acute abdomen. Also, it was reported in the literature that severe clinical pictures such as bowel perforation, obstruction, pelvic abscess and sepsis may be encountered^{2,3}. The intestinal segments to which IUD most frequently migrate are sigmoid colon (40.4%), small intestine (21.1%) and rectum (21.1%). If the triad of chronic abdominal pain, fever, and intermittent diarrhea in conjunction with the history of missing IUD is present, it was stated in the literature that the migration of IUD to intestines should be considered.⁵ In our case, the other findings were present without fever. If there is a history of chronic pelvic pain and change in bowel habits and a history of IUD insertion, uterine perforation and IUD migration should be considered when pregnancy history or pregnancy is detected.

Although there are studies suggesting that high-risk and asymptomatic patients may be followed up with medical treatment, in case of perforations or migration to intestine, bladder or vessels, IUD should be removed^{3,6}. The primarily preferred treatment should be laparoscopic methods for IUDs which were detected to cause perforation of myometrium or abdomen by radiological examinations and laparotomy can be performed if laparoscopy fails

because of extensive adhesions^{7,8}. The cases who were treated with endoscopic treatment instead of surgical treatment in case of migration of IUD to colon were reported in the literature. Even some cases in whom an endoscopic hemoclip was applied to the area where IUD was removed were reported⁹. We preferred colonoscopic treatment in our case because most of the IUD was within the lumen and our patient was clinically asymptomatic and no abnormality was detected in the laboratory examinations.

In conclusion, use of IUD is a method which contains potential risks despite one advantage. Uterine perforation and IUD migration should be kept in mind when pregnancy is detected in the presence of IUD insertion history. Imaging methods should be used to detect the accurate localization of IUD. We consider that removal of IUD with colonoscopy performed by experienced specialists may be a safe and successful procedure for asymptomatic cases in whom it is detected incidentally in sigmoid colon.

References

1. Zülfükar B, Efser Ö, Özderin Özin Y, et al. An foreign body inside rectum; intrauterine device. *Endoscopy Gastrointestinal* 2015; 23:62-63.
2. Caliskan E, Ozturk N, Dilbaz BO, et al. Analysis of risk factors associated with uterine perforation by intrauterine devices. *Europ J Contracept Reprod Health Care* 2003;8(3):150-155.
3. Cavıldak İK, Nalbantı, Öztürk U, Tuygun C, Göksel Göktuğ H.N. Intrauterin Device Migration to the Bladder and Endoscopic Treatment; Case Report. *J Clin Anal Med* 2015; DOI: 10.4328/JCAM.3329.
4. Takahashi H, Puttler KM, Hong C. et al. Sigmoid colon penetration by an intrauterine device: a case report and literature review. *Military medicine*, 2014;179(1): e127-e129.
5. Arslan, Anil, et al. "Colon penetration by a copper intrauterine device: a case report with literature review." *Archives of gynecology and obstetrics* 279.3 (2009): 395-397.
6. Markovitch O, Klein Z, Gidoni Y, Holzinger M, Beyth Y. Extrauterine mislocated IUD: is surgical removal mandatory? *Contraception* 2002;66(2):105-8.
7. Akpınar F, Özgür EN, Yılmaz S, Ustaoglu O. Sigmoid colon migration of an intrauterine device. *Case Rep ObstetGynecol* 2014; 2014:207659. DOI: 10.1155/CROG.207659.
8. McCombie JJ, Le Fur R. Colonoscopic removal of an ectopic intrauterine device. *ANZ J Surg* 2012; 82:369-70.
9. Assarian A, Raja MA. Colonoscopic retrieval of a lost intrauterine contraceptive device: A case report and review of articles. *Eur J Contracept Reprort Health Care* 2005; 10:261-5.