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# Transmigration of an Intrauterine Device which Presents Abscess in Sigmoid Mesocolon

# Sigmoid Kolon Mezosunda Abse ile Bulgu Veren Rahimiçi Araç Migrasyonu

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### Öz

Rahim içi cihaz (RİA) etkili, geri dönüşümlü, yaygın olarak kullanılan bir doğum kontrol yöntemidir. RIA yerleştirilmesi sonrası abdominopelvik visseraya, pelvise, mesaneye, rektum ve kolona göç gibi nadir, ciddi komplikasyonlar görülebilir. 33 yaşında dış merkezde RİA yerleştirme öyküsüne sahip kadın karın ağrısı yakınması ile acil servise başvurdu. Akut karın bulguları nedeniyle eksploratif laparotomi yapıldı. Araştırmada sigmoid kolon duvarına ve mezokolnuna migrasyon gösteren kendini sınırlamış bir apseye neden olmuş bir RIA saptandı. RIA, sınırlı bir sigmoid mezokolon eksizyonu ile birlikte çıkartılarak primer suturasyon uygulandı.Hasta postoperatif 7. günde sorunsuz taburcu edildi. Rahim içi cihazların sigmoid kolona migrasyonu nadir bir durumdur. RİA öyküsü olan hastalarda bağırsak alışkanlıklarında değişiklik, kronik pelvik ağrı semptomları RİA'nın kolon göçünün bir işareti olabileceğini olarak akılda tutmalıdır.

Anahtar kelimeler: Akut karın, Karın içi apse, Rahim içi araç, Migrasyon, Sigmoid kolon.

## Abstract

The intrauterine device (IUD) is an effective, reversible, widely used contraception method. After RIA placement, rare, serious complications such as migration to abdominopelvic viscera, pelvis, bladder, rectum and colon can be observed. A 33-year-old female had a previous history of IUD insertion in an external center presented emergency service with abdominal pain. Due to the presence of acute abdominal findings, explorative laparotomy was performed. The exploration revealed a RIA with a limited abscess formation migrated to the sigmoid colon wall and mesocolon. IUD was excised with limited mesocolon of sigmoid and primary suturing was performed. The patient was discharged uneventfully on the 7th postoperative day. Transmigration of IUD to sigmoid colon is a rare condition. Physicians should keep in mind that patients with a history of IUD who had changes in bowel habits and chronic pelvic pain symptoms may be a sign of colonic migration of IUD.

Keywords: Acute abdomen, Intraabdominal abscess, Intrauterine device, Migration, Sigmoid colon.

### 1. Introduction

The intrauterine device (IUD) is one of the most common, effective, recyclable and easy to apply contraception methods [1]. Despite the advantages of using IUD, there are many life-threatening complications suchas bleeding, uterine perforation, migration, fistula formation, bowel obstruction, bowel perforation, hydronephrosis and peritoneal adhesions [2-4]. Herein, we aimed to report an unusual complication of transmigrated forgotten second IUD which presents localized abscess in sigmoid mesocolon and treated with laparotomy.

#### 2. Case presentation

A 35-year-old female patient had a history of IUD insertion, and had no history of chronic disease or surgery. Approximately five days ago, IUD was extirpated by the obstetrics and gynecology clinic. The patient admitted to the emergency department with abdominal pain. Physical examination revealed tenderness, defense and rebound positivity in both lower quadrants of the abdomen. Abdominal computed tomography (CT) showed an intraabdominal foreign metallic object (IUD) adjacent to the left ovary in the abdomen which had located around the sigmoid colon with minimal free air particles (Figure 1).



**Figure 1.** Abdomen CT showed IUD located around the sigmoid colon with minimal free air particles.

Laparotomy was performed due to the peritonitis symptoms. During laparotomy, it was observed that the second forgotten IUD migrating was inflamed around the sigmoid colon meso and the device was located in the sigmoid mesocolon with a limited abscess. Drainage and IUD extirpation with carefully resection wi thout disrupting vascularization from the sigmoid colon meso was performed and sent to path ology. A primary suturing was performed on the sigmoid colon. Antibiotic treatment was completed to seven days and drain was taken. No complication was observed in the postoperative follow up period. The patient was discharged uneventful postoperative 7th day. Pathological examination of the sigmoid approximately colon meso showed; IUD 1.5 cm in diameter was observed to form a pus-filled abscess.

#### 3. Discussion

Perforation, migration and bleeding is life-threatening complications of IUD. The perforation rate is estimated to range from 0.05 to 13 cases of 1,000 IUD placements [2,3]. Two mechanisms have been been proposed for uterine perforation secondary to IUD [2,3]. Perforation due to sudden traumatic causes and the other proposed mechanism is caused by erosion of myometrium [2,3]. After perforation, the IUD may remain in the peritoneal

cavity or may migrate to intra-abdominal structures. In the literature, migrated IUD has been reported in many various places such as the ureter, urinary bladder, omentum, small bowel, appendix, cecum, rectum and sigmoid colon [3,4]. History of abortion, placement during the postpartum period, congenital uterine anomalies, retroverted uterine axis can be listed as factors that are increased to IUD transmigration [3,4]. Also, Atileh et al. suggested that increased intrauterine pressure during pregnancy is a factor[5].

The patients who had migrated IUD may presents different complaints such as chronic pain located lower quadrant of the abdomen, change in bowel habits, rectal bleeding, vaginal discharge, symptoms of peritonitis [3,4]. Ultrasonography is often used to locate IUD; however, if the IUD is not found in the uterus, or as in our case, the IUD is in the right place but the patient had peritonitis symptoms, CT scan may be performed to avoid skipping the IUD and its secondary complications [4,5]. In addition, although abdomen X-ray is a cheaper, accessible and easy imaging methods which may be helpful for showing IUD, its sensitivity is not as high as computed tomography. Conservative treatment in asymptomatic patients may cause IUD to migrate to more critical sites and even cause abscesses as in our case. Conventional surgery, laparoscopic surgery, endoscopic removal are the treatment choices for removal of migrated IUD [4,5].

In conclusion, with the inflammatory process in the uterus secondary to long-term use of IUD, uterine integrity may be impaired and although rare, migration into the abdomen, rectum, bladder and colon may result in life-threatening complications.

The use of IUD should be questioned in female patients presenting to the emergency department with abdominal pain, and it should be kept in mind that this may cause serious complications such as migration to the secondary abdominal cavity.

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