

# LAPAROSCOPIC REMOVAL OF EXTRAUTERINE MISLOCATED IUDs: REPORT OF SIX CASES

## *Laparoskopik Kayıp Ekstrauterin RİA'ların Çıkarılması: Altı Olgu Sunumu.*

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### ÖZET

Rahim içi araçlar (RİA) geri dönüşümlü kontrasepsiyon yöntemlerinden biri olarak yaygın kullanılmaktadır. RİA'ların maliyeti düşüktür ve bir kere takıldıktan sonra uzun süre koruyabilmektedir. Dolayısıyla, bu korunma yöntemi bütün dünyada en çok kullanılan yöntemlerden sayılmaktadır. Bu yayında, laparoskopik olarak karın boşluğundan kayıp RİA başarılı bir şekilde çıkarılan altı olgu sunulmuştur. Beş olguda RİA'lar minimal bir yapışıklık oluşturarak veya organlara zarar vermeden sadece omentuma gömülü bir şekilde tespit edilmiştir. Bir olguda ise RİA takılırken uterin perforasyon sonucunda uterusu gömülüken izlenmiştir. Bütün RİA'lar omentumdan ve uterustan başarılı bir şekilde laparoskopik olarak çıkarılmıştır. Kayıp ekstrauterin RİA'ların çıkarılmasında laparoskopik cerrahi birinci ve güvenli bir yöntem olarak kabul edilebilir.

**Anahtar Kelimeler:** intrauterin cihazlar, laparoskopi; uterus perforasyonu

### ABSTRACT

The intrauterine device (IUD) is a widely used method of reversible contraception. It is a cheap method and could be used over many years when inserted. So, it is still one of the most popular methods throughout the world. Our goal is to report six cases successfully treated by laparoscopy with the lost IUD in abdominal cavity. In five cases, IUDs were found to be embedded in the omentum with minimal adhesions or without any adhesions to viscera. And in one, there was a uterine perforation during the insertion of IUD. All IUDs were extracted from the omentum and the uterus without any difficulty, by laparoscopy. Laparoscopy is the first and the safety choice of surgery in most of the cases when removal is intended.

**Key words:** intrauterine devices, laparoscopy; uterine perforation

### INTRIODUCTION

The intrauterine device (IUD) is a widely used method of reversible contraception (1). One of the major complications of IUD is perforation through the uterine wall into the pelvic or abdominal cavity which can occur at the time of insertion or later (2). A patient with a dislocated or lost IUD may suffer from abdominal pain, or she may be asymptomatic and the complication may not be noticed. Copper-bearing IUDs outside the uterine cavity can cause peritoneal adhesions, visceral perforation, strangulation and infections (3-5). Ultrasound, X-ray or computerized

tomography is performed to confirm the diagnosis of a suspicion of a lost IUD. Most of the physicians prefer to explore the pelvic and abdominal cavity via laparoscopy and extract the device.

We report six cases of lost IUD in abdominal and pelvic cavity, being successfully treated by laparoscopy. Written consent was obtained from all patients.

#### **Case reports**

**Case 1:** A thirty-five-year old patient having irregular menses attended to the gynecology department asking for removal of a copper-bearing IUD inserted

18 months ago. Her obstetrical history included one normal vaginal delivery and one first-trimester abortion. The strings of the IUD were not visible, and her gynecologic examination was normal. Transvaginal ultrasonography failed to show an intrauterine IUD. Performed tomography demonstrated an IUD on the left side in the pelvis, between the small intestinal loops. Laparoscopy was performed, and IUD was seen embedded in the omentum in the hypogastric region with filmy adhesions. IUD was removed without any complication, and the patient was discharged the next day.

**Case 2:** A twenty-eight-year old patient because of having delayed menses and irregular bleeding attended to gynecology department. A copper bearing IUD was inserted one year ago. The strings of the IUD were not visible. Her gynecologic examination was normal and serum  $\beta$ -hCG was negative. Ultrasonography demonstrated a dislocated IUD in the pelvis outside the uterine cavity. Transvaginal ultrasonography failed to show an intrauterine IUD. Laparoscopy was performed, and IUD embedded in lower segment of the omentum without any adhesion to adjacent organs was removed without any complication. The patient was discharged the next day.

**Case 3:** A thirty-six-year old patient attended to gynecology department because of having vaginal discharge. Her obstetric history included 2 normal vaginal deliveries; two first trimester induced abortions. A copper bearing IUD was inserted two years ago. Her gynecologic examination revealed minimal leucorrhoea, and the strings of the IUD were not visible. Transvaginal ultrasonography was not able to demonstrate the IUD in the uterine cavity. Abdominal X-ray demonstrated the IUD superior to the sacrum at the midline. Laparoscopy was performed, and IUD embedded in the omentum was removed without any complication. No adhesions

were seen. The patient was discharged the next day.

**Case 4:** A twenty-four-year old patient attended to gynecology department because of suspicion of uterine perforation during insertion of a copper bearing IUD. Her obstetric history included one vaginal delivery. The strings of the IUD were not visible; uterus and adnexa were normal, only there was minimal vaginal bleeding from external cervical os. Transvaginal ultrasonography was not able to demonstrate the IUD in the uterine cavity. Abdominal X-rays demonstrated the IUD on the right side of the pelvis. Laparoscopy was performed and IUD was seen in the right paracolic region, free in intestinal loops, no adhesion was observed. A perforation defect was seen on fundus of the uterus with minimal bleeding that was controlled with bipolar cautery. No adhesions were seen. The IUD was extracted without any complication, and the patient was discharged the next day.

**Case 5:** A thirty-four-year old patient attended to gynecology department for her routine controls. Her obstetric history included one normal vaginal delivery. A levonorgestrel IUD was inserted three years ago. Her gynecologic examination was normal, only the strings of the IUD were not visible. Transvaginal ultrasonography was not able to demonstrate the IUD in the uterine cavity. Abdominal X-rays demonstrated the IUD on the upper abdomen. Laparoscopy was performed, and IUD was seen deeply embedded in the lower part of the omentum which was easily extracted. The patient was discharged the next day.

**Case 6:** A fifty-four years-old patient attended to gynecology department because of chronic left lower abdominal pain. Her menses was castrated six years ago and a copper bearing IUD was inserted 20 years ago. Her obstetric history included 4 normal vaginal deliveries, and two first trimester induced abortions. Her gynecologic examination was normal, only the strings of the IUD were not visible.

Transvaginal ultrasonography was not able to show an intrauterine IUD. Abdominal X-ray demonstrated the IUD in the lower abdomen. Office hysteroscopy was performed, and IUD was not visible. Laparoscopy was performed and IUD deeply embedded in the omentum was seen. By the help of sharp dissection, some omental tissue attached to the IUD was removed together with the IUD;

homeostasis was done by bipolar cautery. The patient was discharged the next day.

All five IUDs were inserted during the menstrual cycle to provide the women weren't pregnant. Only one was inserted at 6<sup>th</sup> week postpartum period and before insertion a new pregnancy was ruled out by  $\beta$ -hCG blood test. The demographic characteristics and the patient's cause of admission to our clinic are given in **Table**.

**Table. The demographic characteristics and the patient's cause of admission to clinic.**

	Age, years	BMI <sup>a</sup> , kg/m <sup>2</sup>	Obstetric history of patients	Duration of IUDs use, months	Types of IUDs	Causes of admission to hospital
Case 1	35	22,5	G2P1A1	18	TCu380A	Lower abdominal pain
Case 2	28	21,4	G2P1C1	12	TCu380A	Menometrorrhagia
Case 3	36	22,7	G4P2C2	24	TCu380A	Vaginal discharge
Case 4	24	24,1	G1P1	-	TCu380A	Uterine perforation
Case 5	34	23,2	G2P1A1	36	LNG-IUD	Annual control
Case 6	54	24,6	G6P4C2	240	TCu380A	Lower abdominal pain

a: Body mass index

## DISCUSSION

Although IUD perforation through the uterine wall is a rare event as 0.87 per 1000 insertions, this condition could cause severe complications as peritoneal adhesions, visceral organ perforations, strangulation, infection and infertility (2-5). The accepted treatment for a lost IUD is its removal by laparoscopy or laparotomy. The World Health Organization recommended that a displaced IUD should always be removed as soon as possible once the diagnosis has been established. It has been reported that the displaced copper bearing IUDs could erode the serosa of colon. In these three cases reported colotomy was necessary to remove the IUD, and in one of the cases temporary colostomy was performed (6).

In our cases, laparoscopy was the choice of treatment and was successful in all six cases. Our diagnoses were based on recognizing that strings of IUD being not visible on examination and confirming by transvaginal ultrasonography that IUD is not in uterine cavity. The next step in our cases was to perform an abdominal X-ray to confirm that IUD is in abdominal cavity. Except in one case which was a uterine perforation during insertion, in all other five cases IUDs were found to be embedded in the omentum with minimal adhesions or without any adhesions to viscera. In these cases, the IUD was deeply or partially embedded in omentum, but it was always possible to extract the IUD from the omentum without any difficulty. In the perforation case, IUD was found to

be free in abdominal cavity. All laparoscopies were performed without any complications, and patients were discharged the next day-after surgery. Same authors suggest not remove asymptomatic lost IUDs because of low rate of intestinal complications and risk of additional adhesion formation after a laparoscopy. Because of ethical issues and low rate of dislocated IUDs it is impossible to design prospective randomized studies. In our opinion, the best choice for the management dislocated IUDs is to discuss the case with the patient, informing her about potential complications if IUD is left in situ or no complications could never occur. The important point when counseling the patient is to tell her that we do not have any evidence-based medicine

proofs favoring removing IUD or leaving it in situ. However, it is our duty to inform the patient about the potential life-threatening and organ destroying complications if the IUD is left in situ.

Our experience supports the idea that laparoscopy is a safe and successful method to remove dislocated IUDs. Transvaginal ultrasonography and abdominal X-ray studies were enough to make the correct diagnosis in our cases. In five of six cases, IUDs were found embedded in omentum and therefore during laparoscopy omentum should be carefully inspected during surgery. If laparoscopy is done just after a suspicion of perforation, it is possible to find the IUD not adherent to any organ, free in abdominal cavity.

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