

# Laparoscopic removal of extrauterine intrauterine device found in the broad ligament: A case report

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## SUMMARY

*Uterine perforation is one of the rare complications of intrauterine device (IUD). This case report is about laparoscopic removal of a dislocated IUD found between the two layers of the broad ligament due to perforation during insertion. During insertion of an IUD to a 27 year old patient, uterine perforation occurred. Ultrasonographic examination revealed an IUD outside the uterus. Laparoscopy was planned for the removal of the IUD. During laparoscopic examination, a copper IUD was detected between the two layers of the broad ligament on the posterior of the left round ligament and the tip of one of the arms of the IUD was seen. The IUD was removed, and any complications were not observed after the operation. Laparoscopic management of the extrauterine IUDs should be the first choice of treatment in these cases.*

**Key words:** Intrauterine device, laparoscopy

## ÖZET

### **Broad ligamentte bulunan rahim içi araç laparoskopik olarak çıkarılması: Olgu sunumu**

*Uterus perforasyonu rahim içi araçların ender görülen komplikasyonlarından biridir. Bu olgu sunumunda rahim içi araç takılması sırasında oluşan uterus perforasyonu sonucunda broad ligamentin iki yaprağı arasında bulunan rahim içi aracın laparoskopik olarak çıkarılması sunulmuştur. Yirmi yedi yaşındaki bir hastaya rahim içi araç takılması sırasında uterin perforasyon oluşmuş ve ultrasonografik olarak rahim içi araç uterus dışında saptanmış ve bu nedenle laparoskopi planlanmıştır. Laparoskopi sırasında rahim içi araç broad ligamentin her iki yaprağı arasında, sol round ligament posteriorunda saptanmış ve laparoskopik olarak çıkarılmıştır. Operasyon sonrasında herhangi bir komplikasyon saptanmamıştır. Uterus dışındaki rahim içi araçların laparoskopik olarak çıkarılması ilk tedavi seçeneği olarak düşünülmelidir.*

**Anahtar kelimeler:** Rahim içi araç, laparoskopi

## CASE REPORT

Implantation of an intrauterine device (IUD) is one of the most common type of contraceptive method and it is used widely in the world and also in Turkey. As 16.9 % of the women use IUD as a contraceptive method in Turkey, it is the most widely used modern method among Turkish women <sup>(1)</sup>. IUD insertion should be performed by trained health personel. Uterine perforation is one of the rare complications of IUD. Despite different rates in the literature, the perforation rate was given as 2.2 per 1000 patients in a study from our center <sup>(2)</sup>. This case report is to document laparoscopic removal of a dislocated IUD found between the two layers of the broad ligament due to perforation during its insertion.

A 27- year- old patient with two children was admitted to our family planning center for IUD insertion. She had a normal vaginal delivery 7 months ago. During insertion of the IUD, uterine perforation happened and the patient was hospitalized for follow up. During gynaecological examination, the string of the IUD was seen, and there was no pain or vaginal bleeding. Ultrasonographic examination revealed an IUD outside the uterus and there was no intraabdominal fluid collection (Figure 1). The hemoglobin level was 13.6 g/dl and remained stable during the follow up of the patient. Laparoscopy was planned for the removal of the IUD. Informed consent covering permission for the documentation of the case and for the operation was taken from the patient.

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The patient was prepared for the operation and laparoscopy was performed under general anesthesia. Laparoscope was inserted through one umbilical and two ancillary ports. During laparoscopic examination, the copper IUD was detected between the two layers of the broad ligament on the posterior of the left round ligament and the tip of the one of the arms of the IUD was seen and there was no hemorrhage in the abdomen (Figure 2). The IUD was removed, and there were no complications observed after the operation. The patient was discharged from the hospital on the first day of the operation and the recovery period was uneventful.



Figure 1. The ultrasonographic image of the extrauterine intrauterine device.

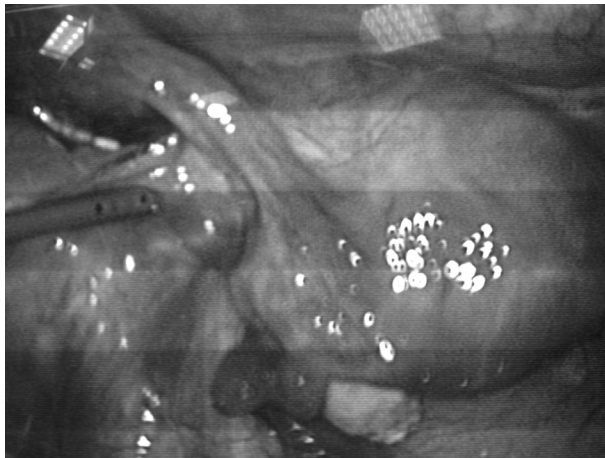


Figure 2. The intrauterine device in the broad ligament.

## DISCUSSION

Uterine perforation is the most important complication related to IUD insertion, and it requires early

diagnosis and treatment. Some of the risk factors for uterine perforation includes inadequate evaluation of the uterus during gynaecological examination of the patient, a retroverted uterus, insertion during the postpartum period, and inexperience of the health staff who inserts the IUD (3). Pelvic pain, vaginal bleeding, tachycardia and hypotension may be observed in cases of perforation, however some cases may be completely asymptomatic. Uterine perforation due to IUD may be recognized during the first months after insertion in only 28 % of the women and 56 % of the perforations are detected only when a pregnancy occurs (4). Ultrasonography and pelvic X-ray can be performed to detect the localization of the dislocated IUDs. World Health Organisation (WHO) recommends removal of IUDs if extrauterine IUD is diagnosed within six weeks after the insertion or at any time if it is symptomatic. WHO also recommends that displaced but asymptomatic IUDs should be left in their place (5).

A case with Graefenberg Ring found in the right ligamentum latum, and removed by laparotomy 8 years after the insertion was reported (6). In the past, removal of the IUDs were performed by laparotomy because of the presence of adhesions and perforation of the viscera. However, advances in laparoscopic techniques allow the routine use of laparoscopy in these cases (7). Deshmukh et al. (8) reported a case with an IUD translocation to right adnexa. Radman described a case with an IUD found within the layers of the broad ligament (9). Extrauterine IUDs may be found in various places inside the peritoneal cavity however rarely found in the broad ligament.

Before insertion of the IUD, adequate evaluation of the position, and the size of the uterus by gynaecological examination, correcting uterine axis during insertion by cervical traction especially in patients with retroverted uterus, and training of the health staff who inserts the IUD are of critical importance for the prevention of uterine perforation during IUD insertion. Laparoscopic management of the extrauterine IUDs should be the first choice of treatment in these cases.

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