

Transuterine Migration and Bowel Injury as a Complication of Intrauterine Contraceptive Device

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Intrauterine contraceptive device (IUD) is a widely accepted method of contraception. Although IUD is one of the most effective contraceptive methods, the migration of it from the uterus is a rare but an extremely serious complication. The aim of this report is to emphasize the management and therapy of this complication.

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Key Words: Intrauterine contraceptive device, Complication, Uterine perforation

Intrauterine device (IUD) is a widely accepted method of contraception in Turkey. The most serious complication of IUD insertion is uterine perforation. The reported incidence of perforation range is fortunately only 0.5-1/1000 per insertions.¹

Perforations may intrude the neighboring visceral organs, especially intestinal tract complications; involving the bowel obstruction, bowel perforation, mesenteric penetration, bowel infarction, rectal strictures, rectouterine fistula, and colocolic fistula may occur. Generally uterine perforations can not be recognized at the time of IUD insertion. The aim of this report is to emphasize the management and therapy of this complication.

Case Report

A 52 year old woman, gravida 2, para 2 was presented to the gynecology department with lower abdominal pain and urinary urgency. In the history, she was inserted a Multiload-Cu 375 -type IUD 50 days ago. Insertion was noted to be difficult and painful. Gynecologic examination showed normal vagina and cervix, a normal sized, retroverted and mobile uterus without adnexal masses. On speculum examination, IUD threads were not detected. Transvaginal sonography revealed an empty uterus. An X-ray of the abdomen and the pelvis showed that IUD is located on the right side of the pelvis (Figure.1). On laboratory test, urinary infection was not detected. Hysteroscopy was performed to investigate the relationship between the uterus and the location of the IUD. We were not able to locate the IUD in the uterine cavity by

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hysteroscopy. Laparoscopy revealed the perforation of the fundal uterine wall totally and a terminal bowel and bladder injury. The two flexible plastic arms and the vertical copper-bearing limb had eroded into the wall of the terminal bowel and bladder. Terminal bowel segment was primarily repaired successfully by laparoscopic intervention. The serosal defect of the bladder was minimal, so that we didn't perform any interventions for it. Patient was discharged without any complication on the second postoperative day.

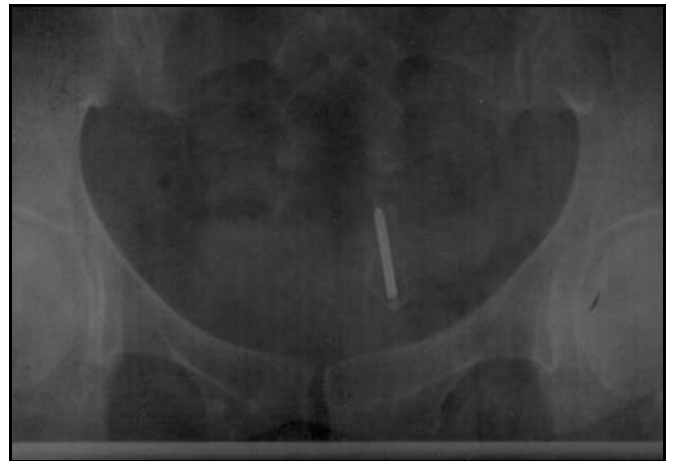


Figure 1. X-Ray demonstrating IUD in the pelvis.

Discussion

The frequency of associated uterine perforation has been estimated at 0.5-1/1000 insertions. Perforation of the uterus is fortunately seen rarely but it is one of the most serious complications of insertions. Perforation is suspected whenever the strings are not visible from the cervical os. The problem may be diagnosed by the patient herself, although only about 2/3 of women who practice self-examination are able to feel their IUD threads. When completely perforated, IUD can occupy in any part of the peritoneal cavity.

When an IUD can not be found, one has to consider expulsion, perforation or embedment in the myometrium. Any suspicion about the perforation of an uterus should follow an organized and systematic approach utilizing an assortment

of radiologic and operative techniques.² The diagnosis of perforation and transuterine migration of the IUD may be confirmed with ultrasound, a plain abdominal X-ray, hysteroscopy and laparoscopy. Pelvic examination and abdominopelvic ultrasound are the diagnostic methods commonly used.³ Ultrasound cannot find a lost IUD without reference to some structures, especially if the IUD is free-floating. All IUDs are radio opaque and if the IUD is not found in the uterus, it can be located in the abdominal cavity by x-ray of the abdomen, including lateral views. An anterior-posterior view of the pelvis may suggest that the IUD is in the uterus when it is not. The best way to ensure that the IUD is not in the uterus is to use hysteroscopy. If the IUD is in the abdominal cavity, the safest and most acceptable way to remove it is by laparoscopy. Both routes may be helpful if an IUD is partially perforated. IUDs in the abdomen, especially copper IUDs, will develop adhesions and may bear bacteria from the insertion process. Perforated copper IUDs should be removed as soon as possible.^{4,5} Ingec et al reported ileal penetration by a copper-bearing IUD is a rare but serious potential complication. The triad of abdominal pain, fever and intermittent diarrhea associated with a missing IUD has been suggested as representing the symptoms and signs of bowel injury.⁶ Recently peritoneal adhesions reported by levonorgestrel releasing IUD following uterine perforation. And this was found similar to that of the copper-bearing IUD.⁷

This case presents, sonography should be used to ascertain whether the IUD is in the uterus. If not, abdominal radiography should be used to determine whether the device has been expelled or has migrated. The diagnosis should be confirmed by hysteroscopy and laparoscopy.

Conclusion

The most serious potential complication of IUD use is uterine perforation and this can cause to severe morbidity. When an IUD is located in the abdominal cavity, it should be carefully managed and removed, even in mild symptoma-

tic patient. When the string is found to be missing, pregnancy must be excluded, and the endometrial cavity explored by ultrasonography. If the IUD is not found in the uterine cavity, abdominal x-ray should be used to determine whether the device has been expelled or has migrated. Good selection of women using IUD will result in less reported cases of missing IUDs.

References

1. Gentile JP, Siegler AM. The misplaced or missing IUC. *Obstet Gynecol Surv* 1977; 32:627-41.
2. Dunn JS Jr, Zerbe MJ, Bloomquist JL, Ellerkmann RM, Bent AE. Ectopic IUD complicating pregnancy. A case report. *J Reprod Med.* 2002; 47:57-9.
3. Husemeyer RP, Gordon H. Retrieval of missing threads. *Br J Sex Med.* 1980; 7:32-4, 51.
4. Khrouf M, Slim N, Zouari F, Chelli H, Chelli M. Value of hysteroscopy in the removal of intrauterine devices lacking an examination string. *Tunis Med.* 1985; 63:475-7.
5. Soderstrom RM. Trailing and treating the wandering IUD. *Am J Gynecol Health.* 1989; 3:33-4.
6. Ingec M, Kumtepe Y, Kadanali S, Ozdiller O. A rare case of ileal embedding by an intrauterine device. *Eur J Contracept Reprod Health Care.* 2005;10:29-31.
7. Haimov-Kochman R, Amsalem H, Adoni A, Lavy Y, Spitz IM. Management of a perforated levonorgestrel-medicated intrauterine device following uterine perforation: the role of progestins in adhesion formation. *Hum Reprod.* 2003;18:1231-3.