

Intra Uterine Contraceptive Devices may not Always Safe for Women

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Abstract: Although IUDs are well tolerated contraceptive methods, they may result serious complications. Here we presented two uterin perforation cases caused by Cooper T and LNG IUD. The first case is of a 43 years old, G1P1 woman, admitted to the Emergency Department with a sudden severe abdominal pain. On vaginal examination, the distal end side of the IUD had been perforated wall of the cervix and it was protruding outside the uterus. In transvaginal ultrasonography, cervical localized IUD and 74x59 mm in size, heterogeneous mass in the left adnexal area were viewed. Patient underwent laparotomy. Left adnexal tuboovarian abscess were observed and bilateral salpingo-oophorectomy was performed. The second case is of a 33 years old, G4P3A1 patient using levonogestrel IUD. IUD ropes were not observed cervical, after 60 days from application. In ultrasonography, IUD was not observed intrauterine. Diagnostic laparoscopy was performed for patient because she also had chronic pelvic pain. It was observed at the free edge on the posterior aspect of the omentum and it was covered by omentum. Perforation of the uterine wall and migration of IUD to the peritoneal cavity is a rare condition but that may be fatal. Perforation is resulted 1/350-1/2500 after IUD application. Most of these cases are asymptomatic. However, pain, dysmenorrhea, abnormal uterine bleeding can be seen. WHO recommends subtraction of all misplaced IUD's even they are asymptomatic or symptomatic. In conclusion, although IUDs are safe and effective contraceptive methods, but rarely they can cause fatal complications.

Keywords: Contraception, Intrauterine contraceptive device, Misplaced IUDs, Perforation.

INTRODUCTION

Today Intrauterine contraceptive devices are the most effective and safe method of contraception. Modern intra uterine contraceptive devices (IUD) are consisting of plastic and in order to increase their effect they secrete copper or levonorgestrel. They are the most preferred method for reversible contraception in the world. It's cheap, easy use, reversible and with its long time effectivity and has minimal side effects, 23% of women prefer them for contraception [1]. Although IUD are generally well tolerated, this does not mean they don't have any side effects or complications. Uterine perforation is a rare but serious complication that they may cause [2]. Here we presented two uterin perforation cases caused by Cooper T and LNG IUD.

CASE REPORT

Case 1

43 years old, G1P1 woman was admitted to the emergency department with a sudden severe abdominal pain. In her medical history we learned that she was using oral antidiabetics for Type II Diabetes and she had an appendectomy operation 20 years ago. In physical examination she was agitated and pale. Fever was 38.5°C, pulse was 96/min and blood pressure was

130/85mmHg. Especially evident in the left lower quadrant, abdominal tenderness was present. On vaginal examination, the distal end side of the IUD had been perforated wall of the cervix and it was protruding outside the uterus (Fig. 1d-1e). In transvaginal ultrasonography, cervical localized IUD and 74x59 mm in size, heterogeneous mass in the left adnexal area were viewed (Fig. 1c-1f). IUD located inside the cervical tissue and left adnexal mass were confirmed in computed tomography (Fig. 1a-1b). There was no other intra-abdominal pathology. In laboratory fasting serum glucose was 166 mg/dl, HbA1c: 7.9, White Blood Cell (WBC) 17200/cm³ and C Reactive Protein (CRP) 15.7 mg/dl. After 24 hours treatment with broad-spectrum antibiotic, IUD which protrudes from the side wall of the cervix was removed in 2 parts (Fig. 1g). Despite treatment with antibiotics for 48 hours, fever did not decline and acute abdomen signs appeared so patient underwent laparotomy. Left adnexal tuboovarian abscess were observed and bilateral salpingo-oophorectomy was performed. In postoperative 24 hours patient had a dramatic improvement in clinical findings and she was discharged at postoperative fifth day.

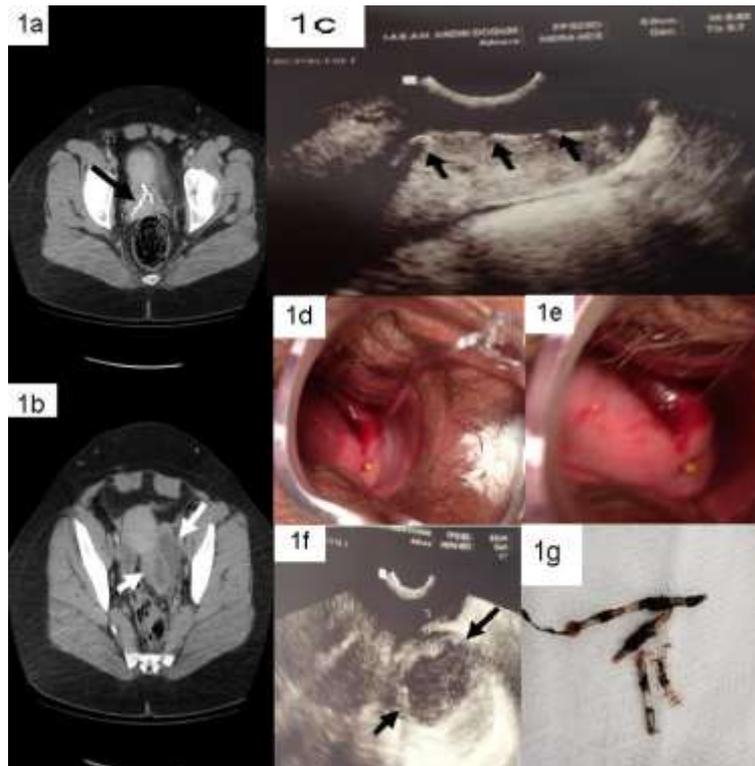


Fig. Case 1

Case 2

33 years old, G4P3A1 patient, using levonogestrel IUD for menometrorrhagia was admitted and IUD ropes were not observed cervical, after 60 days later from application. In transvaginal ultrasonography, bilateral ovaries and uterus were observed normal and IUD was not observed intrauterine. In pelvic X-Ray IUD was observed in pelvis. (Fig. 2a). Pelvic MRI was insufficient due to

technical problems. Diagnostic laparoscopy was performed for patient because she also had chronic pelvic pain. IUD was not observed in pelvis, excavatio vesicouterina and rectouterina, paravesical and pararectal areas. It was observed at the free edge on the posterior aspect of the omentum and it was covered by omentum. Partial omentectomy was performed and IUD was excised (Fig. 2b, 2c).

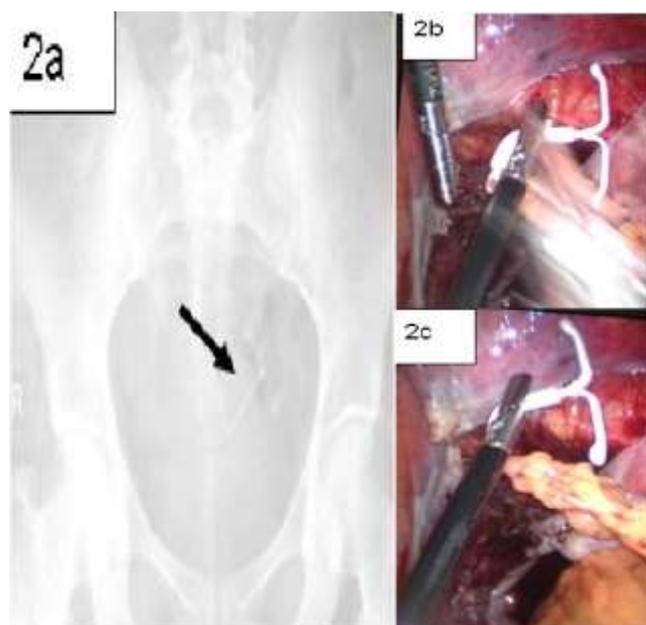


Fig. 2: Case 2

DISCUSSION

Intra uterine devices are today among the most effective and safe contraceptive methods. After sterilization they are the most commonly preferred methods of contraception. Despite this, IUD may cause complications such as bleeding, pain, pregnancy, spontaneous expulsion, uterine perforation, infection and migration of it to other organs. Perforation of the uterine wall and migration of IUD to the peritoneal cavity is a rare condition but that may be fatal [3]. Perforation is resulted 1/350-1/2500 after IUD application. In a community-based study, perforation incidence was reported as 0.4/1000 for both types of IUD and they reported that women, in the age of 30 s and have vaginal delivery are in the risk group [4, 5]. Uterine fragility due to recently abortion or delivery, immobility or retrovert uterus, myometrial defect, performer's low practice and inadequate follow are risk factors for perforation and migration [6]. As previously reported most cases of uterine perforation is associated with copper IUD. Perforation related to copper IUD is 0-2.2/1000 [7]. Recently usage of LNG-IUD is increasing. In a retrospective study conducted in New Zealand perforation rate of LNG was reported as 2.6/1000 [8]. After perforation, IUD can migrate to the abdominal organs. Most of these cases are asymptomatic. However, pain, dysmenorrhea, abnormal uterine bleeding can be seen. WHO recommends subtraction of all misplaced IUD's even they are asymptomatic or symptomatic [9]. When the perforation diagnosed it is recommended to evaluate as pelvic inflammatory disease (PID) and administration of antibiotics [10]. Most risk for PID occurs during insertion. The risk of infection is highest at the first 20 days after application (1-10/1000). Infections are often caused by polymicrobial and anaerobic bacteria colonized in the vagina and cervix [11]. Laparoscopy is the preferred surgical procedure in the treatment for uterine perforation and migration. If it is not successful or dense adhesions are present, laparotomy may be performed. In a review about elective surgery for intraabdominal IUDs; it was reported that 93% of surgeries are laparoscopic and laparotomy incidence is increasing at abdominopelvic implantation of IUD and cases with dense adhesions [12, 13].

CONCLUSION

Although IUDs are safe and effective contraceptive methods but rarely they can cause fatal complications. In case of uterine perforation such symptoms as pain, abnormal bleeding may occur or may be asymptomatic. Regular controls and ultrasound confirmation of the intrauterine settlement is helpful for the diagnosis of asymptomatic cases.

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