

Laparoscopic Management of a Frameless Intrauterine Device-GyneFix® Embedded in the Mesentery of the Ileum

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ABSTRACT

GyneFix® is a small, frameless, armless, flexible intrauterine device. The proximal end contains a knot that is anchored in the uterine fundus using a special apparatus. A 31-year-old woman presented with abdominal cramps ten days after GyneFix® insertion. Transvaginal ultrasonography was unsuccessful in locating the intrauterine device therefore a direct X-ray sonogram of the abdomen while standing was performed. The X-ray sonogram of the abdomen showed the intrauterine device in the right quadrant. An exploratory laparoscopy was performed and showed that the intrauterine device perforated the uterine fundus and was embedded in the mesentery of the ileum. The intrauterine device was removed without complication. Although the reported complication rates are very low for GyneFix®, practitioners should be well trained and should be aware of such complications that could lead to bowel resection. We report the first case of a GyneFix®- Intrauterine device presenting with uterine perforation and nearly intestinal perforation since its recent introduction into the Turkish market.

Keywords: Frameless intrauterine device, Uterine perforation, Laparoscopy

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Introduction


The GyneFix® 200 consists of four-5 mm long copper sleeves threaded onto a monofilament polypropylene thread, which contains a knot with a marker on the proximal end that is inserted into the myometrium of the uterine fundus with an introducer to keep the intrauterine device (IUD) fixed in place (1). Although GyneFix® has been in use in many European countries from the late 90s, it has recently been introduced into the Turkish market (2). GyneFix® is a small, frameless, armless, flexible IUD that has lower expulsion rates, less menstrual bleeding, less pain and as a result, fewer discontinuation rates than other framed IUDs (3). These advantages of GyneFix® are mostly attributed to its smaller size, since many women, particularly nulliparous women, have narrower uterine cavities than expected (4,5).

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Case Report

A 31-year-old woman gravida 1 para 1, who had a frameless IUD-GyneFix® (Control, Belgium) placement ten days previously in an office setting presented with abdominal cramps. The IUD could not be visualized by transvaginal ultrasonography therefore; an X-ray sonogram of the abdomen was performed, which showed the IUD located in the right quadrant (Figure 1).



Figure 1: X-ray sonogram of the abdomen showing the frameless IUD (arrow)

Laparoscopy was carried out and showed that the uterus was perforated and the GyneFix® was embedded in the mesen-

tery of the ileum (Figure 2). The case was consulted with a general surgeon intraoperatively and it was concluded that no bowel resection or suturing was necessary. The GyneFix® was removed from the mesentery of the ileum without any complication. The area of uterine perforation was left for secondary healing since it was quite small. A TCu-380 IUD inserted under laparoscopic guidance and a Hemovac drain were placed in the pouch of Douglas. The drain was removed, and the patient discharged on the following day. Her control visits one month after the operation including her gastrointestinal functions were normal. The Nova TCu-380 IUD was seen located within the uterus.

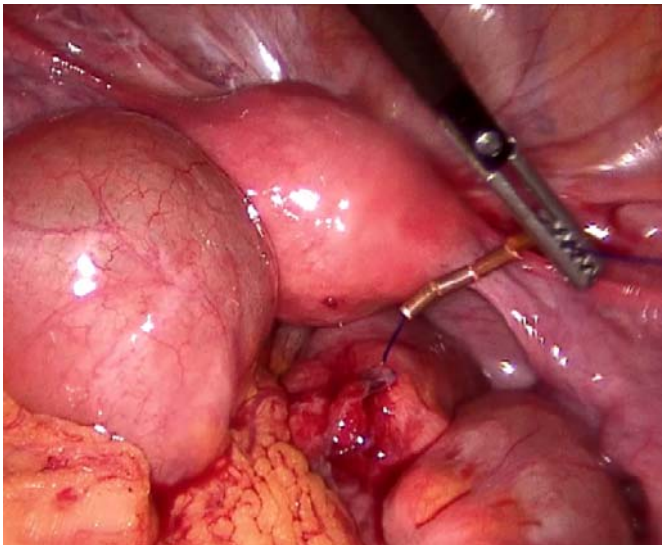


Figure 2: The point that the uterine fundus is perforated (black arrow). The knot of GyneFix is embedded in the mesentery of the ileum (white arrow).

Discussion

GyneFix® is reported to cause less pain and bleeding and lower rates of embedment and expulsion, which are attributable to its harmony with the uterine cavity (3-5). Fewer side effects, GyneFix® has high user continuation rates (5). GyneFix® carries risks of similar complications as other IUDs, including expulsion, failure of implantation, uterine perforation, bowel perforation and bowel resection (6-8). The incidence of uterine perforation is estimated at between 0.4 and 1.6 per 1000 insertions for copper IUDs (9). Despite this, an incidence of uterine perforation with GyneFix® has not yet been reported instead of case series. Laparoscopy should be the method for managing intraperitoneal IUDs (8,9). To over-

come complications such as uterine perforation and bowel resection with GyneFix® the practitioner should be well-trained and skilled in using the device, as well as aware of complications for timely intervention. Post-insertion follow-up should also be carried out for possible risk of migration of the device.

Herein, we report the first case of a GyneFix®-IUD presenting with uterine perforation and nearly intestinal perforation and its laparoscopic management without any complication since its recent introduction into the Turkish market.

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