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Case Report

A rare case report on uterine perforation by levonorgestrel releasing intrauterine device

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ABSTRACT

A levonorgestrel-containing intrauterine contraceptive devices are widely used in contemporary gynaecology, primarily as an effective method for contraception and for control of menstrual disorders like menorrhagia and dysmenorrhea. A case report of the uterine perforation by the levonorgestrel-releasing intrauterine device (LNG-IUD) in a 33-year-old asymptomatic woman after an 18-month of insertion. On routine cervical smear examination, the LNG-IUD threads were not visualised through the cervical os. After abdominal ultrasound scan the confirmation of perforated LNG-IUD was done and was removed laparoscopically.

Keywords: LNG-IUD, Uterine perforation, Contraception, Intrauterine device, Levonorgestrel

INTRODUCTION

A LNG-IUD though commonly used for perimenopausal AUB, sometimes it is used as a contraceptive specially when the patient having heavy menstrual bleeding along with desire to prevent unwanted pregnancy. It is one of the commonly used forms of contraception and is one of the most effective forms of reversible contraception with efficacy rates similar to subdermal implants and copper IUD.¹ The local effect of levonorgestrel in the uterine cavity is sperm mobility inhibition, changes of endometrium structure, and cervical mucus changes. The LNG-IUD reduces menstrual blood flow and is potential in preventing endometrial hyperplasia.

A serious complication associated with the insertion of IUD is uterine perforation. The risk of perforation ranges from 0 to 2.1 per 1,000 insertions.² Several cases of LNG-IUD-related uterine perforation have been reported. Being a hormonal intrauterine device not only it acts as a

contraceptive method but also useful in correcting certain type of abnormal uterine bleeding.

CASE REPORT

A 33-year-old woman, gravida 3, para 3, she delivered all of her children by spontaneous vaginal deliveries, with history of regular menstrual cycles after discussion with her gynaecologist opted for a levonorgestrel-releasing intrauterine device for contraception. The device was inserted 12 weeks after her last delivery. The procedure of the insertion was reported as uneventful. The woman had no history of abdominal pain or irregular uterine bleeding during the last 18 months. Regular vaginal examinations by her gynaecologist were being done which noted that the threads of LNG-IUD were not visualised through the cervical os. She was totally asymptomatic when she went for a periodic cervical smear, at which point this problem with the LNG-IUD device was detected.

Ultrasound scan confirmed that the device was seen at the posterior fundal region appearing to be partially in the myometrium and partially appearing to penetrate the serosa. A diagnostic hysteroscopy followed by laparoscopy was performed by using standard site ports entry. A systematic search for the missing IUD was done. During laparoscopy uterus normal in size, right ovary and tube normal. left ovary normal, left hematosalpinx noted, and the tail end of the IUD was noted perforating through the broad ligament hidden under the tubes, as the IUD was firmly stuck with fibrosis in broad ligament, futile attempts were made to remove IUD by pulling the tail of IUD. Further dissection of the posterior leaf of broad ligament was done in order to visualise and then dissected and was seen penetrating the left mesosalpinx embedded in the left lateral adnexa close to the cornual end and left salpingectomy done. LNG-IUD identified was removed by creating a small opening in the mesosalpinx. Haemostasis was achieved. Further evaluation was done to note any incidental bowel disturbances.



Figure 1: Perforation of LNG-IUD through the left broad ligament, hidden under left fallopian tube.

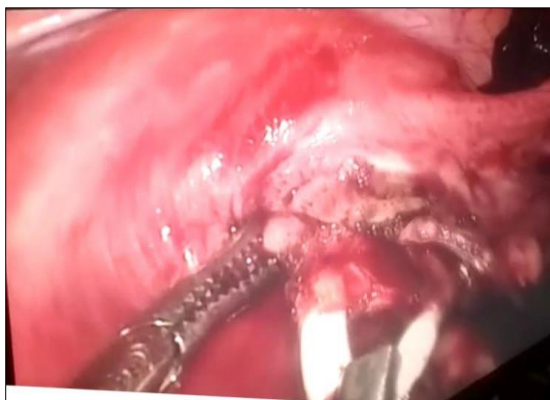


Figure 2: LNG-IUD identified removing by creating a small opening in the mesosalpinx.



Figure 3: LNG-IUD after removal after dissection of posterior leaf of broad ligament.

A simple laparoscopic procedure with the removing of IUCD was accomplished. Patient withstood the procedure well. Further patient was discharged next day, after she passed bowel.

DISCUSSION

The most popular type of birth control is the LNG-IUS, with prevalence rates varying from 2% to 80% among nations. One of the known negative effects of the LNG-IUD is uterine perforation associated with the placement of this device, which delivers 20 gm of levonorgestrel per day. These perforations occur somewhere between 0 and 2.6 times for every 1000 insertions. The device can, however, be expelled roughly 8 times out of every 1000 insertions. As a safe and effective means of contraception, LNG-IUD is also used to treat uterine fibroids, menorrhagia, dysmenorrhea, and other menstrual diseases, as well as to protect the endometrium in women receiving hormonal replacement therapy (HRT).³

Additionally, the LNG IUD's negative effects may be less severe than those associated with other hormonal contraceptives because to the localised hormone release and lower systemic blood levels as compared to other hormonal treatments.⁴ Nevertheless, LNG-IUD has some negative effects, just like many therapies in modern medicine. Patients' desires to stop using the LNG-IUD device therapy are likely driven primarily by ongoing pain and discomfort as well as irregular vaginal bleeding. In women who do not have STDs, the device does not increase the prevalence of pelvic inflammatory disease, infertility, or tubal ectopic pregnancies.

Moreover, this simultaneous therapeutic approach assures the operating clinician and the patient that an unwanted pregnancy in the future is very unlikely with the LNG-IUD device inserted on the same occasion as the termination of pregnancy is to be carried out.

CONCLUSION

As a contraceptive, LNG-IUD is probably the most effective reversible method of contraception and without

the need to take daily oral medication, as in case with combined oral contraceptive or progesterone-only pills. Perforation into the broad ligament is quite rare and challenging for its extraction laparoscopically. But also, it is well tolerated, long acting, reversible, and adequately retained within the uterine cavity.

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