

## > THE PATIENT

28-year-old woman

## > SIGNS & SYMPTOMS

- Postpartum IUD placement
- Exclusively breastfeeding
- Difficulty maintaining milk supply

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## > THE CASE

A 28-year-old G1P1 initially presented to the family medicine clinic 4 weeks postpartum to discuss possibilities for contraception. She had received her prenatal care through a midwife and had had a successful home delivery. She was exclusively breastfeeding her infant daughter but wanted to ensure adequate spacing between her pregnancies.

During the discussion of possible options, the patient revealed that she had previously had an intrauterine device (IUD) placed and expressed interest in using this method again. A levonorgestrel-releasing IUD (Mirena) was placed at 6 weeks postpartum, after a negative pregnancy test was obtained.

The patient returned to the clinic about 6 months later with complaints of increased difficulty maintaining her milk supply.

## THE DIAGNOSIS

The patient had taken a home pregnancy test, which was positive—a finding confirmed in clinic via a urine pregnancy test.

**■ Gestational age.** Since the patient had an IUD in place and had been exclusively breastfeeding, gestational age was difficult to determine. A quantitative human chorionic gonadotropin (hCG) test showed an hCG level of 12,469 U/L, consistent with a 4-to-8-week pregnancy. An ultrasound performed the next day showed a single intrauterine pregnancy at 21 weeks.

**■ IUD location.** There was also the question of the location of the IUD and whether it would interfere with the patient's ability to maintain the pregnancy. On ultrasound, the IUD was noted within the cervix and myometrium. After discussion of the risks, the patient chose to leave it in place.

## DISCUSSION

IUDs are among the most effective forms of contraception; levonorgestrel-releasing IUDs are more effective than copper IUDs.<sup>1</sup> The rates of failure in the first year of use are 0.8% and 0.2% for copper and levonorgestrel-releasing IUDs, respectively.<sup>1</sup>

**■ The Lactational Amenorrhea Method (LAM),** which is defined as providing infant nutrition exclusively through breastmilk during the first 6 months postpartum, also provides protection against pregnancy. LAM has a failure rate of 0% to 1.5%.<sup>2</sup>

It is not surprising that this patient thought she was adequately protected against pregnancy. That said, no contraceptive method is foolproof (as this case demonstrates).

**■ Risks to the pregnancy.** When pregnancy does occur with an IUD in place, the patient should be informed of the possible risks to the pregnancy. These include complications

such as spontaneous abortion, chorioamnionitis, and preterm delivery.<sup>3</sup> Risk is further increased if the IUD is malpositioned (as this one was), meaning that any part of the IUD is located in the lower uterine segment, myometrium, or endocervical canal.<sup>4,5</sup>

■ **Removal of the IUD** is generally recommended if the device and its strings can be located, although removal does not completely mitigate risk. In a study done in Egypt, 46 of 52 IUDs were removed successfully, with 2 spontaneous abortions as a result.<sup>6</sup> Of note, the IUDs extracted in this study were Lippes loop and copper models, not levonorgestrel-releasing IUDs such as our patient had. There is a single case report<sup>7</sup> of a patient who had a Mirena inserted very early in a pregnancy; the IUD had to be left in place due to the risk for miscarriage, but she was able to carry the infant to term and did not experience any adverse effects.

### Our patient

The patient delivered a male infant vaginally at term without issue. However, the IUD was not expelled during this process. Ultrasound showed that it was embedded in the posterior myometrium with a hypoechoic tract. The patient was referred to Gynecology, and the IUD was successfully removed.

### THE TAKEAWAY

Even the most reliable method of contracep-

tion can fail—so pregnancy should always be in the differential diagnosis for a sexually active woman. Location of IUD placement is important; it must be in the right place to be effective. The tenets of LAM must be followed precisely in order for breastfeeding to provide protection against pregnancy. Patients can successfully carry a pregnancy to term with an IUD, as this patient did, but it places them at higher risk for ectopic pregnancy, premature rupture of membranes, and infection. **JFP**

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#### CORRESPONDENCE

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