A Rare Cause of Acute Appendicitis: Migration of an Intrauterine Device

Sir,

Among the most common methods of reversible birth control, intrauterine devices (IUDs) are quite safe and effective; and are preferred by more than 100 million women all around the world. However, even though these devices are most commonly used by millions of women, they may cause some rare but serious complications like uterine perforation, the estimated ratio of which is 1.2/1,000 insertions. Here, a quite rare case of appendicitis presenting with chronic pelvic pain and dysmenorrhea accompanied by an acute and chronic inflammation of appendix caused by a migrated IUD will be reported.

A 25-year, gravida 4, para 4, female having a chronic abdominal pain and suffering from dysmenorrhea for the last 6 months after IUD was inserted, was admitted to our gynecology clinic. She had a 2-month-old infant and was being breastfed at the time of insertion. The patient stated that the IUD was inserted in a primary care center by an inexperienced physician. During speculum examination, the threads of the device could not be detected and uterus was found mobile and non-tender. However, there was tenderness and fullness in the right adnexal region. On transvaginal ultrasonography, uterus was normal in size and the IUD was observed between right ovary and uterus in the abdomen. Abdominal computed tomography (CT) confirmed that the IUD moved out of the intrauterine cavity and localized on the right fallopian tube within the peritoneal space (Figure 1a). On flexible sigmoidoscopy, no migration into the colon was identified. The patient had a diagnostic laparoscopy through which the IUD was found to have penetrated into the appendix. The tip of the appendix, where the IUD was located, was inflamed (Figure 1b). The appendix was surrounded by an inflammatory mass and was adherent to the right adnexal region densely. Following a dissection, an appendectomy was performed (Figure 1c). Afterwards, the IUD was removed out of the right adnexal region with its thread through the umbilical port. After one-night hospital stay, the patient was discharged. She showed no signs of morbidity on both 2-week and 2-month postoperative follow-ups.

IUDs being localized in an unusual site in the peritoneal cavity and their migration into the appendix are rare complications; and there have been few case reports in the literature. While 85% of perforations have no effect on other organs, 15% may cause serious complications on adjacent viscera such as bowel perforation, mesentery perforation, urinary bladder perforation, rectal strictures and recto-uterine fistula formation.

Insertions during early postpartum or lactational amenorrhea periods cause most perforations. Another risk factor is the insertion of the devices by inexperienced staff. This situation shows similarities with our case in terms of insertion in a 2-month-lactation period and the insertion was performed with difficulty. For lactating women, copper IUDs have been the most preferable contraceptives as the quality or quantity of breast milk is not affected. For this reason, they are frequently used; but compared with the plastic devices, a larger proportion of copper-containing IUD in the peritoneal cavity requires removal.

Like Andersson et al., we also suggest that IUDs should be inserted by trained and experienced staff to minimize the risk factor of serious complications. Since lactation is a risk factor for perforation, it is recommended that IUD insertions be postponed until the end of lactation period, but not later than 6 months after delivery.

Regarding an optimal treatment option for uterine perforation and migration of IUDs is surgical removal of IUDs through laparoscopy or laparotomy is preferable, because intra-abdominal adhesions constitute serious risks for adherent organs. Thus, if the staff is skilled enough, we recommend that the process should begin with laparoscopy due to the advantages of exploration. Clinicians should bear in mind that women having IUD and suffering from lower abdominal pain, there might be a possibility for the migration of the device into the pelvis or abdomen and rarely into the appendix, which can
cause appendicitis. Especially, if the device is inserted by inexperienced staff or during lactation period, this serious complication should be investigated and managed more cautiously.

REFERENCES