CLINICAL VIGNETTE

Atypical Pelvic Pain in an IUD User

Cindy Nguyen, MD and Annie Wang, MD

Case

A 32-year-old female with a mirena IUD (intrauterine device) presents to clinic for two weeks of post-coital pelvic pain. The pain is sharp with 10 out of 10 severity, and lasts 30 minutes, then self-resolves. The IUD was placed 2 years ago without any complications. The patient has never experienced any similar symptoms. She is in a monogamous relationship with her husband and has no history of a sexually transmitted disease. She denies fevers, chills, nausea, vomiting, vaginal discharge, vaginal bleeding and urinary symptoms. On exam, she had normal vitals, external vaginal exam was unremarkable, and no cervical motion tenderness. During the speculum exam, her IUD string was visualized with a foreign body object attached at the end of the IUD string. The IUD and foreign body were removed and sent for analysis. The foreign body was 1.8 x 1.0 x 0.4 cm, and consisted of hair and actinomyces species bacteria.

The patient reports when her last IUD was exchanged two years ago, the prior mirena IUD also had a similar foreign body attached to the end of the string that was not sent for analysis.

Her last pap smear two years ago was normal but also noted to have actinomyces species.

After the removal of the IUD, her pelvic pain resolved.

Discussion

Acute pelvic pain is a common complaint seen in outpatient clinics and emergency rooms. It is defined as lower abdominal pain of less than three months. The most common causes for acute pelvic pain include ectopic pregnancy, ovarian torsion, infections such as pelvic inflammatory disease and tubo-ovarian abscess, and foreign body objects.[1] In this case, the patient's pelvic pain may have been due to various factors. She had a foreign body at the end of the IUD string, an actinomyces infection, and on exam, it seemed that the IUD may have been partially expulsed into the cervix.

Actinomyces is part of normal gastrointestinal flora and may colonize female genitalia without any symptoms.[2] Actinomyces-like organisms have been seen on 0.26% of pap smears,[2] and up to 7% of IUD users may have pap smears with actinomyces-like organisms.[3] Therefore, if asymptomatic, those with an IUD and a pap smear with actinomyces may leave the IUD in place and no further treatment is needed. If pelvic inflammatory disease is suspected, it is recommended to remove the IUD, send the IUD for culture, evaluate for abscesses with a pelvic ultrasound, and treat with antibiotics.[4] Initial antibiotic regimen includes empiric treatment for pelvic inflammatory disease or tubo-ovarian abscess, followed by penicillin for at least one month.[5]

The foreign body object, and in this case, the ball of hair, may also cause pelvic pain. Since the foreign body was significant in size and attached to the IUD string, it may have tugged on the IUD causing partial expulsion into the cervix. After the removal of the IUD, her pelvic pain resolved, therefore suggesting the migration of the IUD is the likely culprit for her pain. Since she was asymptomatic from the actinomyces infection, treatment with antibiotics was not indicated. Finally, the recurrent hairball noted on her IUDs may be a reason to consider an alternative birth control method.

REFERENCES

1. **Kruszka PS, Kruszka SJ**. Evaluation of acute pelvic pain in women. *Am Fam Physician*. 2010 Jul 15;82(2):141-7. PMID: 20642266.
2. **Kim YJ, Youm J, Kim JH, Jee BC**. Actinomyces-like organisms in cervical smears: the association with intrauterine device and pelvic inflammatory diseases. *Obstet Gynecol Sci*. 2014 Sep;57(5):393-6. doi: 10.5468/ogs.2014.57.5.393. Epub 2014 Sep 17. PMID: 25264530; PMCID: PMC4175600.
3. **Westhoff C**. IUDs and colonization or infection with Actinomyces. *Contraception*. 2007 Jun;75(6 Suppl):S48-50. doi: 10.1016/j.contraception.2007.01.006. Epub 2007 Mar 23. PMID: 17531616.
4. **Committee on Practice Bulletins-Gynecology, Long-Acting Reversible Contraception Work Group**. Practice Bulletin No. 186: Long-Acting Reversible Contraception: Implants and Intrauterine Devices. *Obstet Gynecol*. 2017 Nov;130(5):e251-e269. doi: 10.1097/AOG.0000000000002400. PMID: 29064972.
5. **Valour F, Sénéchal A, Dupieux C, Karsenty J, Lustig S, Breton P, Gleizal A, Boussel L, Laurent F, Braun E, Chidiac C, Ader F, Ferry T**. Actinomycosis: etiology, clinical features, diagnosis, treatment, and management. *Infect Drug Resist*. 2014 Jul 5;7:183-97. doi: 10.2147/IDR.S39601. PMID: 25045274; PMCID: PMC4094581.