You're Tearing Me Apart: when the uterus gets infected

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Case Presentation

Brief History:

A 22-year-old G3P2012 woman with history of nephrolithiasis, pyelonephritis, renal abscess, recently ablated atrioventricular node re-entrant tachycardia (AVNRT), and pelvic inflammatory disease (PID) presented with two days of bilateral lower abdominal "tearing" pain with radiation to her low back and vagina preceded by 3 days of increase in her chronic yellow vaginal discharge and passage of blood clots in the setting of IUD-induced amenorrhea. She endorsed fevers, palpitations, nausea, and vomiting. She reported being sexually active with one male partner, denied new sexual partners, and denied use of barrier contraceptives.

Physical Exam:

BP 100/70, HR 120, T 38.3C, RR 24, SpO2 98% on RA
CV: RRR, no m/r/g
Abdomen: severe TTP in bilateral lower quadrants, +BS, no masses, no rebound or guarding, no CVA tenderness
Pelvic: gray discharge, normal appearing cervix, non-palpable ovaries, no lymphadenopathy, + **diffuse cervical motion tenderness**

Labs:

CBC and BMP: normal
Beta-HCG: negative
UA: no blood, bacteria, leukocyte esterase, nitrites
Infectious workup with negative cervical *Gonorrhea* and *Chlamydia,* RPR, HIV, blood and urine cultures, and throat swab for GAS.

Imaging:

CT A/P with contrast: No renal, GI, or GU abnormalities.
Transvaginal Ultrasound: unremarkable

Hospital Course

- **Day 1:** Admitted to medical ICU. Volume resuscitated with improved HDS. Given Vancomycin and Piperacillin-Tazobactam
- **Day 2:** Transvaginal US was negative. OBGYN was consulted and agreed with diagnosis of PID.
- **Day 3:** Pt was transitioned to oral antibiotics and was discharged with a 14-day course of PO doxycycline and metronidazole

Differential Diagnosis

Gynecological	GI/GU
Ruptured ovarian cyst	Appendicitis
Ovarian torsion	Pyelonephritis
Pelvic Inflammatory Disease	Nephrolithiasis
Tubo-ovarian abscess	Diverticulitis
Endometriosis	Irritable bowel syndrome

References

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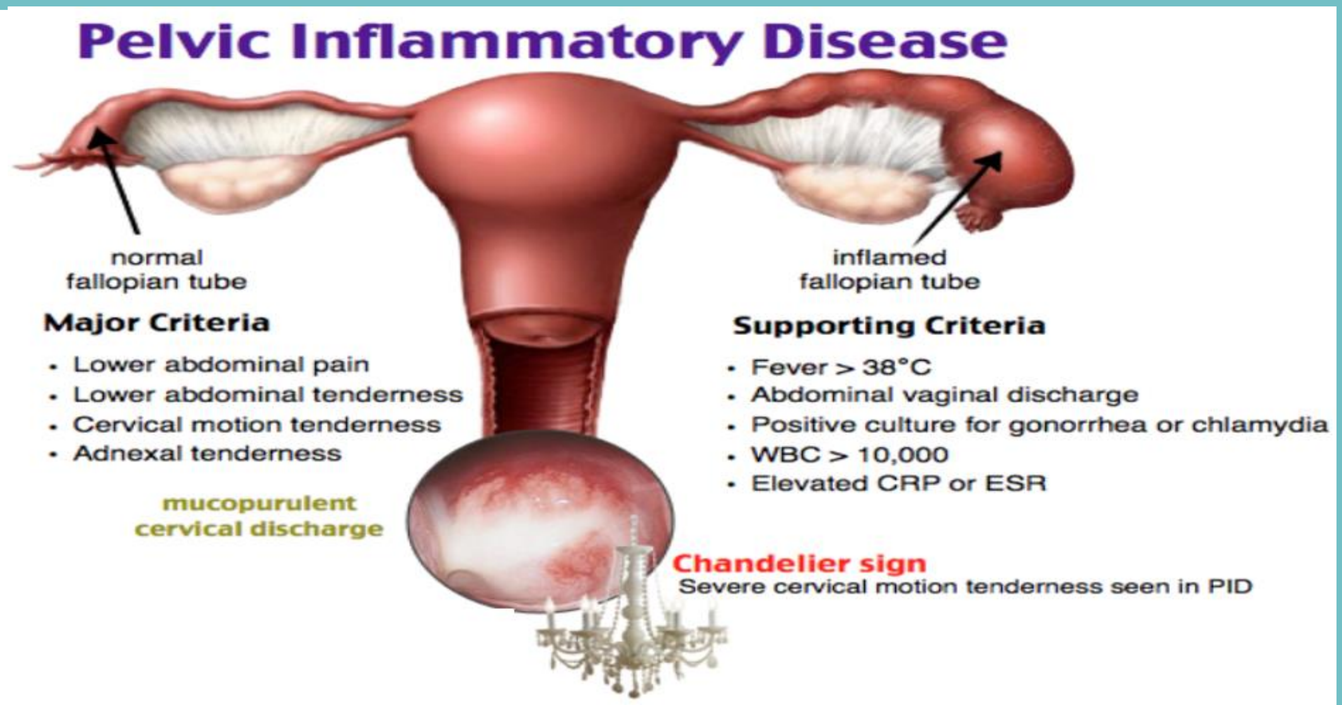

Discussion

This is an unusual case of sepsis from pelvic inflammatory disease (PID). PID is a clinical diagnosis with the above criteria that is usually made in sexually active women of child bearing age. As internists we have a tendency to not think about gynecologic sources of infection and rarely make such diagnoses. This case highlights the importance of keeping gynecological diagnoses on our differential in the correct patient population.

Evaluation of a patient with suspected PID should include pelvic exam with cervical swabbing for gonorrhea and chlamydia, as well as other STI testing including syphilis and HIV. Imaging can be pursued if there is diagnostic uncertainty or if there is concern for complication of PID, such as tubo-ovarian abscess. However, imaging is not required to make the diagnosis of PID.

Most patients with PID can be treated with outpatient antibiotics. Indications for in hospital treatment are severe clinical illness marked by severe pain, high fevers, hypotension, and N/V. Additional factors for inpatient treatment include pelvic abscess and pregnancy.

Antibiotic Selection

Severe	Cephalosporin	Doxycycline
Severe	Clindamycin	Gentamicin
Outpatient	Doxycycline 14d	(+/-) Metronidazole

Take Home Points

- PID is a infection of the upper genital tract most commonly associated with N. Gonorrhea and C. trachomatis.
- It is most common in young, sexually active women with multiple partners.
- PID is a clinical diagnosis presenting with lower abdominal pain, fever/chills, menstrual disturbances, purulent cervical discharge, and cervical and adnexal tenderness.
- Right upper quadrant pain (Fitz-Hugh and Curtis syndrome) may indicate an associated perihepatitis.