EM CASE OF THE WEEK.

BROWARD HEALTH MEDICAL CENTER
DEPARTMENT OF EMERGENCY MEDICINE

BROWARD HEALTH
Care Warriors

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Pelvic Inflammatory Disease

A 26-year-old female with a history of PID presents to the ER with a 4-day history of sharp lower abdominal pain that is 10/10, radiates to the pelvic region and has been constant since onset. The pain is worse with intercourse and movement, and partially alleviated with Ibuprofen. Her LMP was 3 weeks ago and irregular. Patient admits to a fever of 103°F, nausea/vomiting, yellowish-white vaginal discharge, dysuria and overall malaise. She denies any vaginal bleeding. On exam, the patient has severe suprapubic tenderness with guarding and rebound, along with cervical motion tenderness and a mucopurulent discharge pouring from the cervix on pelvic exam. All her labs are currently pending. What is the next best course of management?

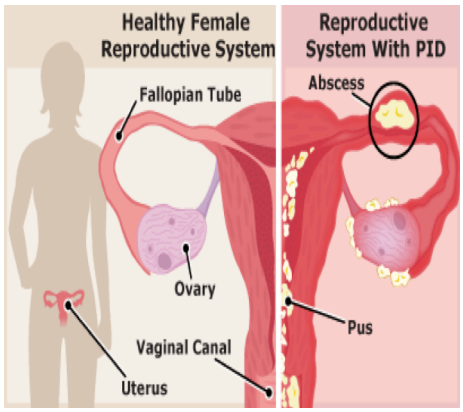
A. Transvaginal Ultrasound

B. Laparoscopy

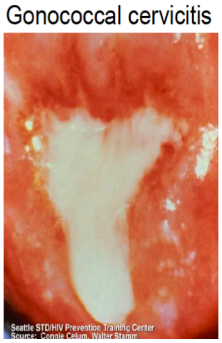
C. CT abdomen/pelvis

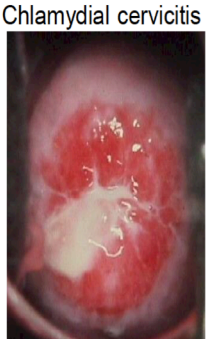
D. Ceftriaxone 250 mg IM single dose PLUS doxycycline 100 mg po bid x 14d with or without metronidazole 500 mg po bid x14d

E. Send home with NSAIDS for pain and follow up outpatient with gynecology



https://www.rchsd.org/health-articles/pelvic-inflammatory-disease-pid/





Most PID cases are caused by sexually transmitted pathogens such as N. gonorrhea, C. trachomatis, or bacterial vaginosis-associated pathogens.

EM Case of the Week is a weekly "pop quiz" for ED staff.

The goal is to educate all ED personnel by sharing common pearls and pitfalls involving the care of ED patients. We intend on providing better patient care through better education for our nurses and staff.

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The correct answer is D. Pelvic Inflammatory Disease (PID) is a polymicrobial infection and results from ascending bacteria from the vagina and cervix. The initiating pathogens are often caused by N. gonorrhea and C. trachomatis. Early diagnosis and treatment appear to be critical in the preservation of fertility. Current guidelines suggest that empirical treatment should be initiated in at-risk women who have lower abdominal pain, adnexal tenderness, and cervical motion tenderness.

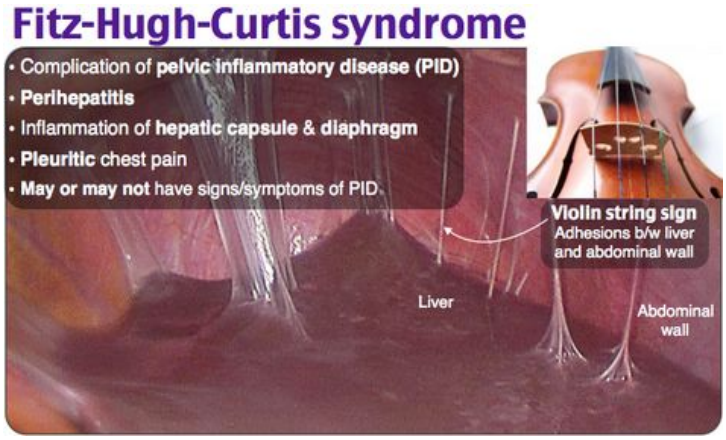
Discussion

Pelvic Inflammatory Disease is an acute inflammatory process of the upper genital tract in women involving some or all of the fallopian tubes, uterus, and ovaries. Involvement of neighboring pelvic organs is also possible. PID can result in endometritis, salpingitis, tubo-ovarian abscess, oophoritis, peritonitis, or perihepatitis.

Most cases are caused by sexually transmitted pathogens. Less than 15% of PID cases are not sexually transmitted and instead are associated with respiratory (eg, *Haemophilus influenza, Streptococcus pneumoniae, and Staphylococcus aureus*) or enteric pathogens (eg, *E. Coli, Campylobacter, and Bacteroides fragilis*).

Signs and symptoms include lower abdominal pain that may become worse with coitus or jarring movements, irregular vaginal bleeding, and vaginal discharge. Nonspecific symptoms of fevers, nausea, and vomiting may also be present.

Risk factors include sexually active, menstruating young women ages 15-25 years, multiple sexual partners, prior PID, instrumentation of the cervix, and first three weeks after IUD insertion.



Barrier contraception and tubal ligation have shown to decrease the risk of PID.

Diagnosis

Minimum Diagnostic Criteria:

- Pelvic/lower abdominal pain
- Cervical motion tenderness (CMT), uterine tenderness, or adnexal tenderness

Additional Criteria:

- Oral temp > 101°F (38.3°C)
- Vaginal or cervical mucopurulent discharge
- WBC's on saline microscopy
- Infection with Gonorrhea or Chlamydia
- ↑ ESR and CRP

Specific Criteria:

- Endometrial biopsy
- Transvaginal US or MRI showing thickening of fallopian tubes with possible free fluid, or tubo-ovarian abscess
- Laparoscopy showing inflammation and perihepatitis

For a list of educational lectures, grand rounds, workshops, and didactics please visit ***BrowardER.com*** and **click** on the ***"Conference"*** **link**.

All are welcome to attend!

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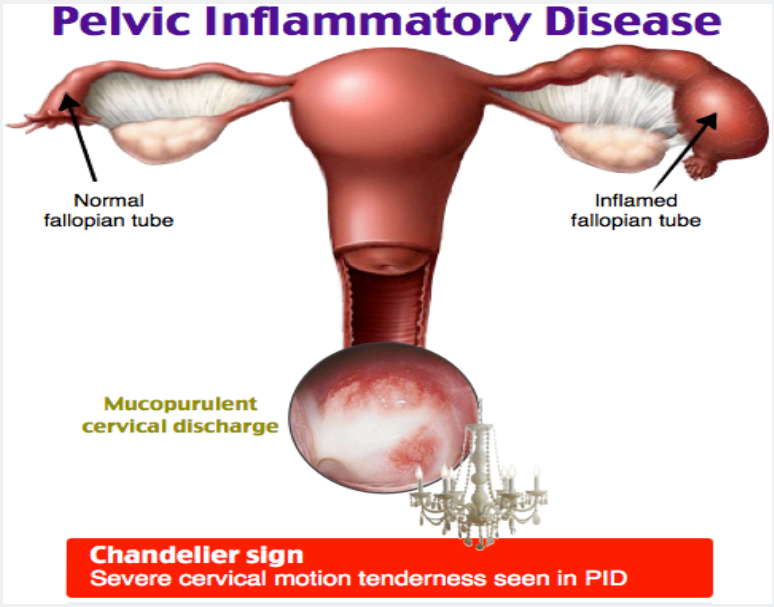

Management

Parenteral Treatment:
Cefotetan 2g IV q12 or cefoxitin 2g IV q6h PLUS Doxycycline 100mg po or IV q12h

Oral Treatment:
Ceftriaxone 250 mg IM single dose PLUS doxycycline 100 mg po bid x 14d with or without metronidazole 500 mg po bid x14d

Indications for Hospitalization:
- Nonadherence to therapy
- Pregnancy
- Tolerance to medications
- Severe clinical illness
- Complicated PID
- Surgical intervention necessary

Take Home Points

- Most cases of PID are caused by sexually transmitted infections such as N. gonorrhoeae, Chlamydia trachomatis, and bacterial vaginosis- associated pathogens
- Primary risk factors include young females, multiple sexual partners, prior PID, instrumentation of the cervix, and recent IUD placement
- Key symptoms include lower abdominal/pelvic pain, CMT, vaginal discharge, and vaginal bleeding
- First line therapy in the outpatient setting includes empiric treatment with Ceftriaxone 250 mg IM single dose PLUS doxycycline 100 mg po bid x 14d with or without metronidazole 500 mg po bid x14d

This month's case was written by Kristin Satterwhite. Kristin is a 4th year medical student from NSU-COM. She did her emergency medicine rotation at BHMC in February 2018. Kristin plans on pursuing a career in Obstetrics & Gynecology after graduation.

REFERENCES

1. Ross, J., MD, & Chacko, M. R., MD. (n.d.). Pelvic inflammatory disease: Clinical manifestations and diagnosis. Retrieved March 3, 2018, from https://www-uptodate-com
2. Sheperd, S. M., MD. (2017, August 17). Pelvic Inflammatory Disease (N. W. Karjane MD, Ed.). Retrieved March 11, 2018, from https://emedicine.medscape.com/article/256448-overview
3. Zheng, T. (2012). Obstetrics and Gynecology. Paradise Valley, AZ: Phoenix Medical Press