It’s complicated: A case of Pelvic Inflammatory Disease

Division of GIM Lecture Series – Case presentation
Anne Wilson, MD
September 25, 2013
• No Financial Disclosures
Objectives

• Review a case of PID with Fitz-Hugh-Curtis syndrome
• Review basic chlamydia epidemiology and current CDC and USPSTF screening guidelines
• Review current CDC PID treatment guidelines
• Review IUD complications
The Case

• 23 year old woman, healthy
• Past history of chlamydia infection
• Normal pap smears, G0
• Negative urine GC/chlamydia screen in May
• IUD placed 3 days after negative screen
Encounter #1: the ER

- SATURDAY in July (2 months later)
- CC: 8 weeks of dull lower abdominal pain, NOW increase in severity x 2 days + chills
- + vaginal bleeding
- Exam: vitals stable, pain diffuse, but some localization to RLQ, with rebound and right adnexal tenderness, no cervical motion tenderness
Ultrasound in the ER

• “Bilateral adnexal lesions with a small amount of simple pelvic fluid. The left likely represents a resolving hemorrhagic cyst. The right lesion measures approximately 5 x 4 x 2 cm and may represent a hemorrhagic corpus luteum cyst. Sonographic follow-up in 6 to 8 weeks is recommended to confirm resolution.”
Other results:

- Wet prep: yeast
- UA:
  - 3+ LE
  - Ketones: 5 mg/dL
  - Urobilinogen: 2.0 mg/dL
  - > 50 WBC/hpf
  - 6-10 RBC/hpf,
  - Many bacteria
  - > 5 squamous cells
- GC/chlamydia: pending
- CBC: 10.7/10.4/31/284, 82% PMNs

- The Diagnosis:
  - Hemorrhagic ovarian cyst (and a yeast infection)
- The Plan:
  - D/C with miconazole
Encounter #2: Clinic

• Follow-up, TUESDAY
• Chlamydia – positive – treated with azithromycin
• Urine culture: > 100,000 CFU, E. coli
• Hx: Still with pain, now mainly RUQ, pleuritic
• PE: vitals stable, +peritoneal signs, now positive Murphy’s sign, no CVA tenderness
• CBC: 8.0/9.6/30/379, 74% PMNs
• Plan: Cipro + RUQ US
Encounter #3: ER

• RUQ ultrasound negative WEDNESDAY
• Phone contact: abdominal pain worse, no improvement after starting antibiotics for UTI
  → advised to return to ER
• In ER, gyn consult:
  – Possible Fitz-Hugh-Curtis syndrome with PID
  – 24 hour follow-up, Zofran and Norco
Encounters #4 and #5: Clinic

- Two more encounters in clinic
- Still with peritoneal signs
- FRIDAY – Finally a scan!
  - CT showing ascites, peritoneal enhancement, periportal edema, pyosalpinx
Abdominal CT – FRIDAY

1. Fullness in the adnexa bilaterally with a rim enhancing tubular structure in the right adnexa. These findings are concerning for pelvic inflammatory disease and a right pyosalpinx.

2. Ascites with peritoneal enhancement in the pelvis and periportal edema, suggestive of Fitz-Hugh-Curtis syndrome as clinically questioned.

Encounter #5: Clinic

- Elect to admit for PID
- Treatment: 3 days of IV clindamycin and gentamicin (allergy to doxycycline), followed by 14 day course of levofloxacin
- Gyn consult: Dx is pyelonephritis, hemorrhagic ovarian cyst. Represented atypical case of PID.
The Complication: Fitz-Hugh-Curtis Syndrome

- Perihepatitis associated with PID
- Inflammation and adhesions between the liver capsule and anterior abdominal wall
- 4-14% of adults with PID, 27% of adolescents with PID
- Direct infection? Hematogenous? Lymphatic? Autoimmune?
- Treatment is typically same as for PID
- Occasionally lysis of adhesions indicated
Chlamydia Basics

• 1.4 million cases in US in 2011

• Wisconsin rates – 2011: 607 / 100,000 in 2011
  – 11.2% positive in family planning clinics
  – 15.4% positive in STI screening clinics

• Dane county: 1916 cases of chlamydia in 2012
  – 390/100,000 people

http://www.cdc.gov/std/chlamydia2011/default.htm#a1
Screening considerations

- Spontaneous clearance – up to 46%, increased with age
- Complications: ectopic pregnancy, PID, infertility
- Complications in pregnancy: PROM, preterm labor, low birth weight, post-partum endometritis, neonatal chlamydia infection
- Increased risk: change in partners (new or multiple), inconsistent condom use, exchanging sex for money, and h/o chlamydia or other STI’s
- Other increased risk: incarcerated, patients in STI screening clinics, and military recruits
USPSTF - screening for Chlamydia

• Screen in sexually active nonpregnant young women age 24 years or younger and for older nonpregnant women who are at increased risk. (A recommendation)

• Screen in pregnant women age 24 years or younger and in older pregnant women who are at increased risk. (B recommendation)

• Do not routinely screen in women age 25 years or older, regardless of whether they are pregnant, if they are not at increased risk. (C recommendation)

• Current evidence is insufficient to assess the balance of benefits and harms of screening for men. (I statement)
CDC - Screening for Chlamydia

- 2010 STI guidelines
- Screen all women ≤ 25, and women > 25 with increased risk
- Nucleic Acid Amplification Tests are recommended (NAAT’s)
- Urine (female): sensitivity 88%
- Cervical specimen: sensitivity 93%
CDC – Treatment for Chlamydia

• Recommended Regimens:
  – Azithromycin 1 gram PO once
  – Doxycycline 100 mg PO BID x 7 days

• Alternative Regimens:
  – Erythromycin 500 mg PO QID x 7 days
  – Levofloxacin 500 mg PO daily x 7 days

• No intercourse for 7 days
• Test of cure not routine
• Expedited Partner Therapy
CDC – PID specific recommendations

• Consider hospitalization for the following:
  – Surgical emergency cannot be excluded
  – Pregnant
  – Patient doesn’t respond to PO abx
  – Patient cannot follow outpatient regimen
  – Severe illness, nausea and vomiting, or high fever
  – Patient has a tubo-ovarian abscess
CDC – PID treatment recommendations

- Cover gonorrhea and chlamydia
- IV Regimens:
  - Cefotetan 2 g IV Q12hr OR Cefoxitin 2 g IV Q6hr PLUS Doxycycline 100 mg PO or IV Q12hr
  - Clindamycin 900 mg IV Q8hr PLUS Gentamicin IV or IM
- PO Regimens:
  - 3rd generation cephalosporin PLUS Doxycycline with/without Metronidazole x 14 days
  - Quinolones only if low prevalence resistance and GC negative
IUD complications

- Uterine perforation
- IUD migration or expulsion
- PID
  - Risk is maximal within first month after insertion
  - > 1 month, it is same as general population
  - Few high quality studies to help delineate under what circumstances the risk is highest
IUD & PID

• Pre-IUD Screening for GC/chlamydia:
  – 2012 Retrospective cohort showing nearly equivalent rates of PID if tested on same day or pre-tested

• Retention of IUD in PID:
  – CDC actually is equivocal on removal of IUD in cases of PID
  – Meta-analysis 2013: IUD retention → equal or improved outcomes (decreased hospital stay) in PID
Case Follow-up

• Admitted for IV antibiotics
• Pain improved over time
• Admitted intercourse with ex-boyfriend 2 weeks after IUD placed
• Referred to OB/Gyn for Implanon
• Counseling about future fertility
Questions?
References


References, cont’d


