SEXUALLY TRANSMITTED DISEASES

Case studies

2015 WV Public Health Symposium
Objectives

To review:

- Important STD’s using a case-based approach
- Treatment and Follow up
- Clinical presentation, diagnostic work-up of selected STD’s
- CDC 2015 STD Guidelines
Case 1

• 37 y.o. man recently returned from a trip to Thailand
  – Reports a penile ulcer

• Physical exam:
  – Afebrile, no rash or lymphadenopathy
  – Ulcer at base of penis, 1 X 1.5 cm, no urethral discharge

What is the differential diagnosis?
Case 1 (cont’d)

Differential Diagnosis:
- Syphilis
- Herpes simplex
- Chancroid

Less likely: Lymphogranuloma venereum (LGV)
Granuloma inguinale

What tests should be ordered?
Case 1 (cont’d)

Tests to order:
- RPR
- HIV test

Consider also:
- Tzanck smear
- HSV-PCR test
Case 1 (cont’d)

• Management (Awaiting test results)?
Case 1 (cont’d)

• Treat for syphilis empirically: Benzathine penicillin IM 2.4 mU
• Also consider empiric treatment for chancroid because prevalent in Far East and so difficult to confirm diagnosis (Rx: azithromycin)
• Screen for other STD’s: Chlamydia & gonorrhea
Case 1 (cont’d)

Results:

- RPR (+) 1:2
- PPA (MHA-TP): positive
- HIV Ab: negative

Diagnosis:

- Primary syphilis
Syphilis

- **Primary**: Ulcer, single or multiple, usually painless
- **Secondary**: Many manifestations (ex. Rash, lymphadenopathy, fever, etc.)
- **Latent**: only serologic tests (+), asymptomatic
- **Tertiary**: Neurological, CV
Syphilis

- All stages need treatment
- RPR titer should fall
- PPA (MHA-TP) or FTA-stays (+) for life

* What if patient is allergic to penicillin?
Management of Syphilis in Penicillin-Allergic Patient

• **Penicillin** is preferred treatment for **all** patients and **all** stages of Syphilis

• **Pregnant Patients** - If allergic to penicillin, always **desensitize** them to penicillin
Case 2

• 30 y.o. sexually active woman developed nausea, vomiting, fever, and right upper quadrant pain
  – Liver enzymes mildly elevated; mildly ↑ WBC
  – Urinalysis normal

Differential diagnosis?
Case 2 (cont’d)

Consider:

• Fitz-Hugh Curtis Syndrome  
  (Perihepatitis from *N. gonorrhoeae* or *Chlamydia trachomatis*)

• Cholecystitis

• Hepatitis

Work up?
Case 2 (cont’d)

Diagnostic Workup:

- Blood cultures
- Pelvic exam
- Cervical swab for DNA - probe – *Chlamydia* and *N. gonorrhoeae*; throat and rectal cultures
- Hepatitis serologies
- Right upper quadrant ultrasound
- HIV test; RPR

Empiric Therapy of Fitz-Hugh Curtis Syndrome (perihepatitis)?
Case 2 (cont’d)

Treatment:

• Treat as for Disseminated Gonococcal Infection with IV Ceftriaxone **AND**
• Give Azithromycin **OR** Doxycycline for possibility of **Chlamydia** infection

Follow up: HIV test, RPR, treat sexual partners, counseling
Case 2 (cont’d)

Disseminated Gonococcal Infection

• Monoarticular arthritis/tenosynovitis [sometimes with pustular/hemorrhagic skin lesion(s)]

• Perihepatitis

• Endocarditis (rare)

• Meningitis (rare)

Treat with IV ceftriaxone
Case 3

- 17 year old female adolescent presented with 3 day history of back and abdominal pain, fever
  - Chills, anorexia 1 day PTA
  - No vomiting, hematuria, dysuria, vaginal discharge or bowel complaints
  - LMP 2 weeks prior, was normal
  - Sexually active, reported condom use
Case 3 (cont’d)

- **PE:** Flushed, uncomfortable
  - T 38.3°C, HR 115, BP 120/70, RR 16
  - Tender in right & left lower quadrants with guarding but no rebound
  - Pelvic: purulent cervical discharge & cervical motion tenderness
  - No adnexal masses
  - Stool heme negative
Case 3 (cont’d)

- Cervical swab
  - NAAT for Chlamydia, N. gonorrhea
- HIV Ab test
- RPR
- Pregnancy test - negative

Diagnosis?
Case 3 (cont’d)

Pelvic Inflammatory Disease

• Diagnosis: clinical
• Treatment:
  Parenteral: Cefoxitin & Doxycycline OR Clindamycin + gentamicin
  IM/Oral: Either Ceftriaxone or Cefoxitin with Probenecid plus Doxycycline (+ Flagyl)
Case 3 (cont’d)

- This same patient, one month later, presents with low grade fever, headache, and 3 painful, shallow genital ulcers

Differential Diagnosis?

What would you do?
Case 3 (cont’d)

• HSV-PCR test (swab) positive
  Diagnosis: **Herpes simplex genitalis**, also probable aseptic meningitis
• Treat with **acyclovir**
• Is there any value to testing Ab for HSV-1 and HSV-2?
Case 4

• A 38 y.o. woman presents for a routine pelvic and PAP smear
  – Asymptomatic; no lesions and no discharge
  – PAP results: “atypical squamous cells of undetermined significance”

What should be done?
Case 4 (cont’d)

Plans:

• Colposcopy
• Consider HPV (Human Papillomavirus) Testing (Typing) on cervical cells

Colposcopy reveals high grade squamous intraepithelial lesion
HPV tests (+) for type 18

What should you do and what should you tell the patient?
Case 4 (cont’d)

• HPV types 16 and 18 (also 31, 33, 35) are a strong risk factor for cervical dysplasia/carcinoma

  – Her lesion may progress to malignancy
  – If a smoker, she needs to stop
  – She needs gynecological management according to the grade of lesion – e.g., cryotherapy, surgery, etc., close follow up

What if she had only visible genital warts causing pruritis?
Case 4 (cont’d)

Visible genital warts:

- Caused by HPV serotypes of 6, 11
- These do **not** increase pt’s risk of cervical dysplasia/carcinoma
- Various treatments available:
  - Patient-administered – podophyllin (**NOT** in pregnancy); Imiquimod
  - Provider-administered – cryotherapy; laser
- **No** treatment eradicates the virus
- HPV vaccine for prevention
Summary

1. Genital ulcers – caused by HSV; Syphilis; chancroid; LGV; Granuloma inguinale (HSV can also cause aseptic meningitis)

2. *N. gonorrhoeae* – causes cervicitis, urethritis, also perihepatitis in women; DGI

   Rx: Ceftriaxone

   Beware of quinolone resistance

*Chlamydia trachomatis* – can also cause cervicitis, urethritis, and perihepatitis
Summary (cont’d)

3. **Parenteral Penicillin** best drug for all patients with syphilis

4. HPV – serotypes 6 & 11 genital warts
   *serotypes 16, 18, 31, 33, 35 – associated with cervical dysplasia, cancer

5. Both ulcerative STDs **AND** those causing urethritis, cervicitis facilitate HIV transmission

6. When you test for **one** STD, screen for the other STD’s also **and** screen/treat contacts.