

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. gonorrhoea**
- **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.