

STD Questions

Case 1

A 25 year old female presents to your clinic complaining of vaginal discharge for the last 3-4 weeks. She describes the discharge as purulent and malodorous associated with burning, pruritis and dysuria. She has 2 sexual partners and decided this could be a fungal infection and treated herself with a vaginal antifungal cream. There was no resolution of symptoms and she decided to come in to the clinic.

What are the main causes for vaginal discharge in a sexually active woman?

How would you proceed in a focused examination of the patient?

Pelvic examination reveals a greenish frothy discharge with a ph of 6. Punctate hemorrhages were visualised on the cervix and vagina. Normal Saline wet prep reveals lactobacilli, increased number of polys.

What is your most likely diagnosis?

What further tests will you check for?

What is the treatment?

Case 2

The same patient presents back to your clinic 6 months later. Her previous symptoms had resolved with the treatment that you had prescribed. 3 months ago she resumed sexual activity with a new male partner. She now complains of a yellowish vaginal discharge and pain with intercourse for the past 10 days. She also experiences lower abdominal pain which gets worse with intercourse. On a speculum examination you find a mucopurulent discharge. She has cervical motion tenderness and mild left adnexal tenderness. The vaginal ph is 4 and you find many WBCs on wet prep with no protozoa.

What is your diagnosis?

What are the most likely organisms?

What are the risk factors associated?

What are the diagnostic criteria?

What is the treatment of choice?

Case 3

A 19 year old girl presents to your clinic with history of painful lesions over her genital area for the past 5 days. History of associated pruritis and dysuria is present. She is in a monogamous relationship with a male partner over the past 2 months. No history of any similar complaints in the past. No other significant medical history. Pelvic exam reveals multiple small, shallow ulcerations in the vulvar region. Examination was extremely difficult due to the pain and a speculum exam was not possible. However there was no CMT.

What is your most likely diagnosis?

What is the differential diagnosis for genital ulcers?

How would you confirm your diagnosis?

What is the treatment of choice?

What is the role of suppressive therapy and when is it recommended?

STD Answers

Case 1

What are the main causes for vaginal discharge in a sexually active woman?

The main infectious causes include

- 1. Chlamydia Trachomatis***
- 2. Neisseria Gonorrhoea***
- 3. Trichomoniasis***
- 4. Bacterial Vaginosis***
- 5. Candidiasis***

Noninfectious causes-

Chemical/other irritants

Allergic or hypersensitivity reaction

Traumatic vaginitis

Atrophic vaginitis

How would you proceed in a focused examination of the patient?

Pelvic Exam

1. Inspection of external genitalia for presence of ulcers or lesions caused by HPV,HSV,Syphilis

2. Speculum exam.

Visualization of the cervix (erythematous, friable)

Obtain sample of discharge from the posterior fornix – check color,consistency,volume

Check ph (normal ph=4)

Check KOH and wet prep

Obtain sample for GC/Chlamydia from the cervical os

3. Bimanual exam- Check for cervical motion tenderness and adnexal tenderness.

What is your most likely diagnosis?

Trichomoniasis.

Daignosis is made by visualization of motile protozoa on a wet prep

What further tests will you check for?

Patient should be screened for other STD such as Hepatitis B and C, HV, Syphilis.

What is the treatment?

Metronidazole 2gm 1 dose or Metronidazole 500mg PO twice daily for 7 days is the treatment of choice.

Patients should be instructed to avoid sexual intercourse until 1 week after completion of last antibiotic dose including both the patient and sexual partner.

Refractory cases- the most common cause for treatment failure include noncompliance and reinfection. Compliance can be increased by the 2gm single dose regimen.

If there is treatment failure-Metronidazole 2gm once daily for 5 days can be tried. No response to this regimen can be treated with Metronidazole 2gm once daily for 14days.

Failure to this regimen can be treated with a trial of Tinidazole.

Ensure treatment of partner.

Case 2

What is your diagnosis?

Pelvic Inflammatory disease.

What are the most likely organisms?

Chlamydia and Gonorrhoea

Other Pathogens- It is considered a polymicrobial infection for treatment purposes and other organisms implicated include-Strep group A and B, Proteus, Klebsiella, bacteroides and peptostreptococcus.

What are the risk factors associated?

Mutiple sexual partners

Age- incidence is highest in the 15-25 age group.

Previous PID-increases the risk of a new episode by factor of 2.3

Douching and IUD insertion.

What are the diagnostic criteria?

One should always maintain a high index of clinical suspicion.

CDC recommends empiric treatment for patients with abdominal pain and at least one of the following features

- ***Cervical motion tenderness or uterine/adnexal tenderness***
- ***Oral temperature >101 F (>38.3 C)***
- ***Peripheral leukocytosis/left shift***
- ***Abnormal cervical or vaginal mucopurulent discharge***
- ***Presence of white blood cells (WBCs) on saline microscopy of vaginal secretions***
- ***Elevated erythrocyte sedimentation rate***
- ***Elevated C-reactive protein***

What is the treatment of choice?

Regimens should cover chlamydia and neisseria Gonorrhoea. In addition, coverage of group A and group B strep., common gram negatives such as E.Coli, Proteus, Klebsiella and anaerobes should be included.

Oral Therapy regimens include

- *Ceftriaxone (250 mg intramuscularly in a single dose) plus doxycycline (100 mg orally twice a day for 14 days) with or without metronidazole (500 mg orally twice a day for 14 days).*
- *Other parenteral third-generation cephalosporins, such as cefotaxime (1 gram intramuscularly in a single dose) or ceftizoxime (1 gram intramuscularly in a single dose) plus doxycycline (100 mg orally twice a day for 14 days) with or without metronidazole (500 mg orally twice a day for 14 days).*

Parental therapy regimens include

- *Cefoxitin (2 g intravenously every 6 hours) or cefotetan (2 g IV every 12 hours) plus doxycycline (100 mg intravenously or orally every 12 hours).*

Clindamycin (900 mg intravenously every 8 hours) plus gentamicin loading dose (2 mg/kg of body weight) followed by a maintenance dose (1.5 mg/kg) every 8 hours.

Case 3

*What is your most likely diagnosis?
Herpes Simplex Virus Type 1 or 2*

What is the differential diagnosis for genital ulcers?

Primary Syphilis

Chancroid (Hemophilus Ducreyi)

LGV(Chlamydia Trachomatis L1-L3)

Granuloma Inguinale (Klebsiella Granulomatis)

*Non sexually transmitted causes include-
Crohns disease*

Behcets

HSV

HIV

How would you confirm your diagnosis?

A clinical diagnosis should be supported with lab investigations.

1. Viral culture- Vesicles should be unroofed and the vesicular fluid should be sent for culture. Specific viral culture media should be used. About 5 days are required to isolate the virus. The diagnostic yield is highest in the early stage of the disease.

Sensitivity of this test for genital lesions is 50%.

2. Polymerase Chain Reaction-

It is more sensitive than viral cultures.

Main limiting factor is the cost of the assay.

It is particularly useful for detection of asymptomatic viral shedding and earlier diagnosis which helps in reducing transmission of the infection.

3. Tzanck Smear-

This demonstrates the cytopathic effect of the virus (multinucleate giant cells). It is demonstrated in scrapings from active lesions. It has a low sensitivity and low specificity. The test cannot differentiate between HSV 1 and 2.

What is the treatment of choice?

Acyclovir 400mg three times daily for 7-10 days

Or

Famciclovir 250mg three times daily for 7-10 days

Or

Valacyclovir 1000mg twice daily for 7-10 days

What is the role of suppressive therapy and when is it recommended?

Suppressive therapy is indicated for recurrent episode of >5 outbreaks per years.

Suppressive therapy can decrease the rate of viral shedding as well as the rate of clinical recurrence. Treatment must be initiated during the prodrome or within the first 48 hours of onset to be effective. Current recommendations are to stop treatment ever 12 months and re evaluate for continuation of treatment.

The recommended dose regimens are

- *Acyclovir - 400 mg twice daily.*
- *Famciclovir - 250 mg PO two times daily.*
- *Valacyclovir - 500 mg once daily; a higher dose of 500 mg twice daily or 1000 mg once daily is recommended in patients with ≥ 10 recurrences per year.*