

UNIT 3: GYNECOLOGY
SECTION A: GENERAL GYNECOLOGY

Educational Topic 35: Vulvar and Vaginal Disease

Rationale: Vulvar and vaginal conditions occur frequently, can be distressing, and may have serious consequences.

Intended Learning Outcomes:

A student should be able to:

- Formulate a differential diagnosis for vulvovaginitis
- Interpret a wet mount microscopic examination
- Describe the variety of dermatologic disorders of the vulva
- Discuss the steps in the evaluation and management of a patient with vulvovaginal symptoms

TEACHING CASE

CASE: A 20 year-old female college student comes to see you because of a persistent vaginal discharge. She is also interested in discussing contraceptive options. She and her boyfriend have been sexually active for 6 months. They use condoms “most of the time,” but she is interested in using something with a lower failure rate for birth control. She has regular menses and no significant past medical or gynecologic history. She describes her vaginal discharge as yellowish and also notes mild vulvar irritation. On physical exam, she has normal external female genitalia without lesions or erythema, a gray/yellow discharge on the vaginal walls and pooled in the posterior fornix. Her cervix is grossly normal but bleeds easily with manipulation. The bimanual exam is unremarkable.

COMPETENCY-BASED DISCUSSION & KEY TEACHING POINTS:

Competencies addressed:

- Patient Care
- Medical Knowledge
- Systems-Based Practice

1. What is your differential diagnosis?

- Bacterial Vaginosis
- Trichomoniasis (*Trichomonas vaginalis*)

- Gonorrhea
 - Chlamydia
 - Candida
2. What tests are currently available to help in the diagnosis of these disorders?
- Saline Wet mount
 - 10% Potassium Hydroxide Microscopy (KOH test)
 - Vaginal pH (important that sample come from mid portion of vaginal sidewall to prevent collection of cervical mucous, blood, or semen which may alter results) Can be a direct measurement or colorimetric testing
 - Amine or “Whiff” Test
 - Vaginal Culture
 - Polymerase Chain Reaction Tests are available for gonorrhea, chlamydia, candida, and trichomoniasis
 - Rapid tests for enzyme activity for bacterial vaginosis, trichomoniasis and candida are available.
 - DNA or antigens testing is available for trichomoniasis, gonorrhea and chlamydia.
 - Vaginal Gram Stain for Nugent Scoring of the bacterial flora can be helpful in identifying bacterial vaginosis (this scoring system assigns a value to different bacterial morphotypes seen on Gram stain of vaginal secretions)
3. What test findings would suggest trichomoniasis?
- Vaginal pH greater than 4.5
 - Flagellated motile trichomonads on saline microscopy
 - Positive vaginal culture
 - OSOM Trichomonas Rapid Test (tests for trichomonas antigens)
4. What two findings can be used to diagnose vulvovaginal candidiasis?
- Blastospores and pseudohyphae on saline or KOH wet mount
 - Positive vaginal culture
5. What are Amsel’s Criteria for the diagnosis of Bacterial Vaginosis?
- Abnormal gray vaginal discharge
 - Vaginal pH greater than 4.5
 - Positive amine test
 - More than 20% of epithelial cells are clue cells
6. The patient is diagnosed with trichomoniasis. What is your treatment plan for this patient?
- Treatment with a 2 gram single oral dose of metronidazole or 500 mg oral metronidazole twice daily for 7 days; an alternate treatment can be Tinidazole 2g single oral dose.
 - Sexual partner must be treated simultaneously and treatment of both partners should be completed before resumption of sexual activity
 - Side effects of metronidazole treatment including a disulfiram-like reaction (drowsiness, headache, and a metallic or garlic taste in the mouth) should be discussed with the patient and patient should be encouraged to abstain from alcohol during and for 24 hours after treatment with metronidazole.

7. What are the additional reproductive health issues you would want to discuss with this patient?
 - STI protection
 - Contraception. Although this patient desires a contraceptive method that has a higher efficacy rate than condoms, you should discuss the need for condom use for protection from STIs.
8. Would you recommend screening for additional sexually transmitted infections in this patient and if so, how?
 - Yes, with serologic testing for hepatitis B, syphilis, HIV and cervical cultures for gonorrhea and chlamydia.

REFERENCES

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