

ATTACHMENT 6

2 CASE STUDIES. THE ROLE OF VAGINAL SWABS IN DIAGNOSING THE CAUSES OF VAGINITIS AND SCREENING AND DIAGNOSING SEXUALLY TRANSMITTED INFECTIONS (STI)

Patient 1: A healthy 24-year-old woman comes to see you complaining of vaginal discharge and itching. You obtain a proper history, which is suggestive of a yeast infection.

Q: The next appropriate step is to:

- 1) *Perform a pelvic exam and obtain the appropriate swabs.*
- 2) *Recommend empirical treatment with over the counter fluconazole.*

DISCUSSION

None of the findings from the history allows a definitive diagnosis since there is considerable overlap in symptoms among the different causes of vaginitis. Therefore, all women with suspected vaginitis should undergo a pelvic examination and diagnostic studies.

Pelvic examination should include:

1. An external genital exam for vulvar erythema, excoriation, warts and other skin changes;
2. A speculum examination to visualize the cervix and vaginal walls, and the type of discharge;
3. A bimanual exam to rule out cervical motion tenderness or adnexal tenderness.

Vaginal pH and office microscopy: If available, test vaginal pH and collect vaginal fluid for office microscopic examination for trichomonas and yeast.

1. A strip with a narrow range pH paper may be used to test the pH of the vaginal discharge.
2. Place a drop of vaginal discharge on a slide, mixed it with a drop of 0.9% saline, apply a cover slip and examine immediately under microscope at low and high power for leukocytes, lactobacilli, yeast, clue cells and trichomonads.
3. Place a drop of vaginal discharge on a slide, mixed it with a drop of 10% KOH and note the presence or absence of fishy odour.

Vaginal swabs: If microscopy and a test strip for pH are not available, then obtain the following:

- 1. INITIAL EPISODE:** One red top (COPAN M40) from the vaginal walls, which is for bacterial vaginosis and yeast (no culture);
- 2. CHRONIC/RECURRENT:** Two red top (COPAN M40) from the vaginal walls for bacterial vaginosis, trichomonas and yeast (including culture);
- 3. IF THERE IS CERVICITIS OR AT RISK FOR STIs:** One yellow top (Cobas PCR) from the lateral vaginal walls (30 seconds) or the cervix for Chlamydia and GC.

If your patient is very symptomatic and cannot wait for the result of the culture, then recommend empirical treatment with an azole (if clinical exam is compatible with a yeast infection), but explain that the results of the test may be negative or reveal something different.

Patient 2: A healthy 22-year-old woman comes to see you because she had unprotected sex with a French tourist visiting Vancouver about 3-4 weeks ago. She has no symptoms; her last period was normal and about a week ago. She is on oral contraceptives, but wants to rule out a STI.

Q: To rule out Chlamydia and Gonorrhea, the test which gives the best results is:

- 1) Self-administered vaginal swabs.*
- 2) Physician obtained endocervical swabs.*
- 3) Urine sample.*

DISCUSSION

It is critical that we don't miss cases of Chlamydia and GC. These infections are underdiagnosed because the majority of infected women are asymptomatic.

The Canadian Guidelines on STI recommends **screening** for Chlamydia and GC:

- Women with a new sex partner or more than 2 sexual partners in the last year;
- Women with a previous STI;
- All pregnant women at the first prenatal visit;

Annual screening is recommended for:

- Sexually active females under 25 years of age;
- High risk populations (i.e.: drug users, incarcerated individuals, sex workers, street youth);

Optimal diagnostic tests for Chlamydia and GC. The diagnostic test of choice for chlamydial infection of the genitourinary tract is nucleic acid amplification testing (NAAT) of vaginal swabs for women or first-catch urine for men, although NAAT can also be performed on endocervical and urethral swab specimens. The Cobas PCR Female Swab Sample Packet is a NAAT.

A major advantage of NAATs is their excellent performance on specimens that can be collected without having to perform a pelvic examination. Several studies have confirmed that ***a swab of vaginal fluid is the preferred approach for diagnosing chlamydial infection, as this specimen provides the highest sensitivity.*** This can be ***collected either by the clinician or the patient.***

As this patient is asymptomatic, she should be offered a self-administered vaginal swab, or a physician-administered vaginal swabs. Urine is acceptable, but it will miss 1 in 10 cases.

BOTTOM LINE

1. Women presenting with symptoms of vaginitis should be examined and tested, and not treated empirically;
2. Always consider screening for Chlamydia and GC, even in asymptomatic women;
3. Asymptomatic women should be offered the choice of obtaining self-administered vaginal swabs, which yields better results than endocervical swabs and urethral swabs.