

## A Man with Penile Ulcerations The 5-Minute Case Study

### Answers and Notes

#### *Question 1*

Answer: a, b, and d. Given the patient's history and the absence of previous symptoms, this most likely represents a first-episode herpetic infection. Whether this episode also represents a primary infection depends on whether the patient has been previously exposed to either HSV-1 or HSV-2. There are 3 reasons to believe that this is a primary infection: 1) recent unprotected sexual exposure to a new partner; 2) the absence of previous episodes of either genital or oral herpes; and 3) the severity of the current episode. While genital herpes may be caused by HSV-1, over 80% of genital infections are caused by HSV-2. Previous infection with HSV-1 has a protective effect on the acquisition of genital HSV-2 infections, mitigates the symptoms of a first episode HSV-2 infection when it does occur, however, does not affect the likelihood or frequency of recurrences.

#### *Question 2*

Answer: d. Historically, viral isolation through culture and subsequent viral sub-typing has been the gold standard for the diagnosis of genital herpes and is still the diagnostic method used in many clinical settings. However, type-specific HSV polymerase chain reaction (PCR) has superior performance over culture and is becoming increasingly available as a herpes diagnostic. Type-specific herpes serology can assist in the diagnosis of herpes, especially when viral detection tests (culture or PCR) are negative or not available. However, a person with primary infection may still be sero-negative at presentation and genital ulcerations in a sero-positive individual may have a non-herpetic etiology. The Tzanck smear has overall low sensitivity and specificity and is consequently not recommended for the diagnosis of herpes.

#### *Question 3*

Answer: d. The most likely cause of urethritis in this patient is HSV.

#### *Question 4*

Answer: a and b. Acyclovir 400 mg orally 3 times a day for 7-10 days is one of the regimens recommended for the treatment of genital herpes – see CDC 2010 Treatment Guidelines. While the patient's urethritis is most likely caused by HSV, most clinicians will treat with doxycycline or azithromycin since another cause for urethritis cannot be ruled out a priori and the likelihood of (co-) infection with *C. trachomatis* is still high enough to warrant treatment for this pathogen.

#### *Question 5*

Answer: a. The patient is most likely infected by his new partner. However, confirmation of her infection (by serology or by viral detection if she is symptomatic) will assist the couple in making decisions about future prevention measures. If she is not infected, consistent condom use and chronic suppressive treatment of the infected male are the only methods that will prevent transmission (other than abstinence), but neither methods are 100% effective. Patients are typically not advised to take suppressive therapy to avoid recurrences until the frequency of recurrences and associated impact on quality of life are known.

#### References:

Lawrence Corey and Anna Wald. Genital Herpes. In: KK Holmes et al. Editors. Sexually Transmitted Diseases. Fourth Edition. McGraw Hill 2008. Chapter 24 (page 399).

[Centers for Disease Control and Prevention. 2010 Sexually Transmitted Diseases Treatment Guidelines. MMWR 2010;59:RR-12.](#)