RESIDENT’S FOCUS

Update on the Diagnosis and Treatment of Syphilis

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The incidence of syphilis has tripled during the last 10 years, and doubts frequently arise about diagnosis and treatment. Syphilis is diagnosed using polymerase chain reaction or dark-field microscopy to demonstrate the presence of spirochetes in a sample obtained from the chancre and/or positive findings in treponemal and nontreponemal tests performed at all stages of the disease.

Both serology tests should be performed together; when performed separately, they lose their diagnostic value because of the increase in false positives. Follow-up is with nontreponemal tests, since fluctuations in the results mirror disease activity, and should always be with the same nontreponemal test used in the initial diagnosis, preferably from the same manufacturer.

It is important to remember that, just as treponemal tests tend to remain positive and fluctuations in the results are not indicative of disease activity, nontreponemal do not yield negative results in tests in a high percentage of appropriately treated patients.

Treatment is still based on intramuscular penicillin G benzathine administered in a single dose of 2 400 000 U for primary syphilis, secondary syphilis, and early latent syphilis and intramuscular penicillin G benzathine administered at 2 400 000 U weekly for 3 weeks in the case of late latent or indeterminate syphilis and tertiary syphilis. Patients who are allergic to penicillin can receive oral doxycycline at 100 mg twice daily for 14-28 days depending on the stage of the disease; in the case of penicillin-allergic pregnant women, the recommendation continues to be desensitization followed by penicillin G benzathine.

Patients should undergo clinical and laboratory follow-up every 3-6 months for 1 year. Decreased values in the nontreponemal test are considered a good response to treatment. Patients whose values do not decrease by at least 2 dilutions should be evaluated bearing in mind the possibility of neurosyphilis, and patients whose values increase by at least 2 dilutions in the nontreponemal tests should be re-treated, since they may be experiencing re-infection.
Although diagnosis and follow-up of patients infected by the human immunodeficiency virus (HIV) are the same as for non-HIV-infected patients, isolated cases of therapeutic failure and more pronounced neurological involvement have been detected at earlier stages in HIV-infected patients.

Every attempt should be made to seek and treat all the patient’s sexual partners from the 3 months before the diagnosis of primary, secondary, or early latent syphilis, even if the results of serology testing are negative. Where serology testing has not been possible or follow-up cannot be ensured, partners from before this 3-month period should be investigated. In the case of late latent syphilis, partners should be evaluated and treated depending on the results of serology testing.1,3

It should also be remembered that syphilis is a notifiable disease.

References

2. CDC guidelines Diseases characterized by genital, anal, or perianal ulcers. Sexually-transmitted diseases. Treatment guidelines August 2006.