

A new study by Sunitha Tata, et al, published in the February issue of the *Journal of Infectious Diseases* examining herpes simplex virus (HSV) reactivation in women provides new and intriguing insight into genital HSV-2 reactivation.

Researchers from the University of Washington and Fred Hutchinson Cancer Research Center conducted the study examining the anatomical patterns of genital HSV-2 reactivation in four women. Eligible participants had a history of symptomatic genital herpes and were not taking any HSV antiviral medication. Ranging in age from 22-26 years, all the women were seropositive\* for HSV-2, HIV-seronegative and white. Two of the four women in the study were also seropositive for HSV-1.

The women consented to daily clinical examinations over a 30-day period. In addition to daily clinical visits for genital examination, participants kept diaries daily to detail their genital symptoms. For women, common locations of viral shedding are the vulva, cervix and perianal area. Therefore, the clinician swabbed each woman at seven different sites during each visit. These sites were right and left labia majora, right and left labia minora, cervix, urethra and perianal area. The swabbed samples collected underwent PCR testing to detect the presence of HSV-2.

HSV was detected in on 44 (37%) of 120 days (30 days each for each of the four study participants). HSV was detected at more than one 1 anatomic site on 25 (57%) of 44 days with HSV shedding, with HSV detected bilaterally (on both sides of the body) on 20 (80%) of the 25 days. HSV was found at all 7 sites on 7(27%) of the 26 days with HSV shedding.

Results from the study indicated that the women experienced both symptomatic and asymptomatic genital viral shedding bilaterally (on both sides of the body) on areas associated with different nerve ganglia. This finding challenges current belief that genital HSV infection resides in dorsal root nerve ganglia on just one side of the body.

Very few studies have addressed patterns of reactivation, though studies of this nature greatly aid in bolstering current calls for HSV-2 suppressive treatment for most infected with HSV and sexually active with someone who is not infected.

ASHA Board member Dr. Edward W. Hook III of the University of Alabama at Birmingham noted the significance of these findings in an editorial in the same issue. As Hook notes, “Although the data need to be validated by additional investigations, they encourage conceptualization of genital herpes as a chronic, nearly continuously active infection rather than an infection characterized by periodic recurrences interspersed with periods of disease inactivity . . . [T]he data are of great potential importance, because they further challenge widely held beliefs regarding genital herpes and, by extension, its management. They also suggest that it is time to use these sorts of data to guide the evolution of our approach to genital herpes management and prevention.”

Hook acknowledges that our understanding of genital herpes infection has come a long way in the past few decades, with advances in testing, treatment and our understanding of transmission allowing patients and providers to better manage infection. However, Hook suggests that providers can go further. As he states, “[T]he approach to therapy has not kept pace with our evolving understanding of this widespread infection. All too many clinicians treat most patients with newly diagnosed herpes with episodic therapy directed at managing the signs and symptoms of periodic symptomatic recurrences. The data presented by Tata et al add to the argument, from a patient and public health perspective, that a national campaign for serological testing of those at risk would provide the foundation for more effective efforts to control HSV transmission to others, and that suppressive therapy should be the preferred approach for most sexually active persons with HSV-2 whose sex partners are not known to be infected. This would not be a simple task. Clinicians would need to reconceptualize their approach to diagnosis and management. In addition, there would be a need to portray genital herpes not as a ‘scarlet letter’ but rather as a widespread untoward consequence of human sexuality, the impact of which on personal and public health could be reduced through broader testing and more aggressive treatment. That is where the data take us; when will we act?”

*\*Seropositive: showing a positive result on a blood serum test.*