

HSV-1 Cited in Genital Infections in Young Women

BY ELIZABETH MEHCATIE
Senior Writer

BETHESDA, MD. — Herpes simplex virus 1 has emerged as an important genital pathogen and is more likely than herpes simplex virus 2 to be the cause of primary genital herpes infections in young women, Sharon L. Hillier, Ph.D., said at a conference on vulvovaginal diseases.

Young, sexually active women are more susceptible to HSV-1 because most do not have protective antibodies to HSV-1 due to the dramatic drop in childhood HSV-1 infections, said Dr. Hillier, director, reproductive infectious disease research, Magee-Womens Hospital, Pittsburgh.

Among the major implications of this trend is the potential utility of the genital



Only 29% of the students at the University of Pittsburgh health clinic had antibodies to HSV-1.

DR. HILLIER

herpes vaccine that is being developed, since it targets only HSV-2, and HSV-2 antibodies do not confer protection against HSV-1, she pointed out.

Since estimates of genital herpes from national seroprevalence studies include only HSV-2 infections, they "probably greatly underestimate" the amount of U.S. cases, Dr. Hillier said at the conference, held by the American Society for Colposcopy and Cervical Pathology.

Studies documenting the emergence of HSV-1 as a cause of primary genital herpes infections date to 1990, when HSV-1 was found to have replaced HSV-2 as the most common cause of genital herpes in Scotland. Studies published in 2000 reported that HSV-1 was the cause of 85% of all primary genital HSV infections in Sweden and 70%-90% of all first episodes of genital herpes in women younger than 21 in Norway. In the United States, a 2003 study found that the proportion of newly diagnosed genital herpes infections due to HSV-1 in a university student health service increased from 31% in 1993 to 78% in 2001.

In a recent study, Dr. Hillier and her associates found only 29% of a sample of college students at a University of Pittsburgh student health clinic had antibodies to HSV-1, making the majority susceptible to infection. The study enrolled 1,207 women aged 18-30 years at three different health clinics and found that the HSV-1 seroprevalence was 46.6% overall, but 60% at the primary care clinic and 51% at an STD clinic (*Sex. Transm. Dis.* 2005;32:84-9).

Their results indicated that age and number of sex partners was associated with HSV-1 seroprevalence: 38% of the women aged 18-20 years were positive for HSV-1 antibodies, increasing to 49% among those aged 21-25 years, and 64% among those aged 26-30 years. HSV-1 seroprevalence was 26% among those who previously had no sex partners, 41% among those who had one to four sex partners in their lifetime,

and 53% among those who had five or more lifetime sex partners.

Follow-up of these women determined that cunnilingus and vaginal intercourse were risk factors for the acquisition of HSV-1 infections: Of the 516 HSV-1 seronegative women who returned for 1,833 visits, 29 acquired antibodies to HSV-1. That means that 6% of the women per year were acquiring herpes infections due to HSV-1 infection, said Dr. Hillier, also, professor of obstetrics, gynecology, and reproductive

sciences, and of molecular genetics and biochemistry at the University of Pittsburgh.

In terms of sex practices, the acquisition rate for HSV-1 was highest among those who had receptive oral sex only, at 9.8 per 100 woman-years, compared with 1.2 cases per 100 woman-years among those who were not sexually active.

Among women having vaginal intercourse, the rate for HSV-1 was 6.8 cases per 100 woman-years, or 6.8% per year, she said. The HSV-2 rate was 5.7 cases per

100 woman-years among those reporting vaginal intercourse, but zero among those reporting receptive oral sex only.

Therefore, "women who report only oral sex are just as likely to acquire HSV-1 as women reporting vaginal sex," she said. These data are similar to findings from Scotland and Finland, indicating oral sex raises the risk of HSV-1 "and has really changed the way we have begun to think about a lot of the women saying they have herpes," she added. ■



PAP was then. HPV is now.

EARN FREE CME CREDITS

and learn more about *The Role of New Technologies in Cervical Cancer Screening* at www.OmniaEducation.com

1. Cuzick J, et al. Management of women who test positive for high-risk types of human papillomavirus: the HART study. *LANCET* 2003;362:1871-1876.
2. Lorincz A, Richart R. Human Papillomavirus DNA testing as an adjunct to cytology in cervical screening programs. *Arch Pathol Lab Med* 2003;127:959-968.

"The Digene HPV Test" was approved by the US FDA and is also known to laboratories and physicians as the "Hybrid Capture 2 High-Risk HPV DNA Test" and "DNAwithPAP Test." This does not refer to the Digene product that tests for several types of the virus commonly referred to as "low-risk HPV," which are not associated with cervical cancer.

DIGENE

Digene Corporation, 1201 Clopper Road, Gaithersburg, MD 20878

Digene is a registered trademark of Digene Corporation. DNAwithPAP, hc2 High-Risk HPV DNA Test and The Digene HPV Test are trademarks of Digene Corporation. © May 2005. Digene Corporation.

The Digene® HPV Test (DNAwithPAP™) is the most advanced screen for the cause of cervical disease and cancer since the Pap was introduced.

- Increased sensitivity up to 100% means greater certainty^{1,2}
- The only objective tool available to identify women at risk for cervical disease or cancer

Emerging as the standard of care, it's the only FDA-approved HPV test indicated for primary adjunctive screening with a Pap for women 30 and over. For more information on The Digene HPV Test, call 800-DIGENE1 or visit www.digene.com.

FIND DISEASE

THE DIGENE®

HPV TEST

PREDICT RISK

DNAwithPAP