

Herpes Risk Highest in Young Black Women

BY HEIDI SPLETE

FROM A CONGRESS OF THE INTERNATIONAL SOCIETY FOR SEXUALLY TRANSMITTED DISEASES RESEARCH

QUEBEC CITY – The incidence of herpes simplex virus type 2 in the United States has remained stable within gender and ethnic groups over the past 2 decades, with young black women remaining at the highest risk for infection, according to an analysis of data from the National Health and Nutrition Examination Surveys for 1988-1994 and 1999-2008.

Herpes simplex virus type 2 (HSV-2) infections have a 16% seroprevalence among 14- to 49-year-olds in the United States, said Dr. Sarah M. Gerver of Imperial College, London. Dr. Gerver presented the findings at the meeting.

She and her associates at Imperial College and the Centers for Disease Control and Prevention in Atlanta combined NHANES data with a predictive model to estimate HSV-2 incidence per 100 person-years at risk.

Overall, the age-adjusted incidence rates over the past 20 years were stable in all sex and ethnic groups with two exceptions, noted Dr. Gerver and her colleagues.

Among women, 'nearly 60% of all new infections were in non-Hispanic blacks, a group that accounts for less than 15% of the female population [in the United States].'

VITALS

Major Finding: Among women in the United States, nearly 60% of all new herpes infections in 2007-2008 occurred in non-Hispanic blacks.

Data Source: NHANES data from 1988-1994 and 1999-2008.

Disclosures: The researchers reported having no financial conflicts of interest.

Incidence rates in Mexican American women and non-Hispanic white women had decreased after 2001 and 2002, respectively.

The age-adjusted incidence of HSV-2 in non-Hispanic white men, non-Hispanic black men, and Mexican American men remained stable at approximately 0.4, 1.4, and 0.7 per 100 person-years at risk, respectively. Non-Hispanic black women had the greatest incidence of HSV-2, which held steady over the study period at approximately 2.2 per 100 person-years at risk.

The incidence rate among 25-year-old non-Hispanic black women was more than 13 times greater than in white men of the same age, the researchers noted.

From 1988 to 2008, HSV-2 incidence rates peaked

between ages 25 and 35 years for all sex and ethnic groups with the exception of Mexican American men, for whom the incidence remained stable by age.

In 2007-2008, the most recent year included in the study, an estimated 753,519 new HSV-2 infections occurred among 14- to 49-year-olds in the United States, comprising 392,208 in men and 361,311 in women. Approximately 53% of the new infections in men occurred in non-Hispanic whites, and half of these occurred in men aged 18-29 years, according to the researchers.

More than half of the HSV-2 infections in women occurred in those aged 14-24 years (204,550); including 40,520 in girls aged 14-17 years and 164,030 in young women aged 18-24 years.

And among women, "nearly 60% of all new infections were in non-Hispanic blacks, a group that accounts for less than 15% of the female population [in the United States]," the researchers noted.

The findings were limited by the researchers' assumption of perfect comparability of the HSV-2 seroprevalence estimates across age, race, and time.

But the stability of the long-term trends in HSV-2 incidence suggests a need for more targeted intervention programs, especially for those at highest risk, the researchers said.

"This information on the detailed distribution of new infections can help improve the efficiency of interventions," they wrote. ■

HPV Vaccine Seen Slashing Abnormal Cytology in Girls

BY JENNIE SMITH

FROM THE LANCET

The incidence of high-grade cervical abnormalities has dropped by more than a third among teenage girls since the start of a school-based vaccination program, according to a study by Australian researchers.

The population-based study, published online in the *Lancet*, examined data from a cervical-screening program in Victoria, Australia's second largest state (*Lancet* 2011;377:2085-92).

Dr. Julia Brotherton of the Victorian Cytology Service Registries in East Melbourne, which collects data on more than 99% of cervical cytology on the state's girls and women, led the research.

Dr. Brotherton and her colleagues noted a decline in cervical abnormalities within 3 years after the initiation of widespread vaccination against human papillomavirus (HPV) among girls aged 18 years and younger.

In older age groups, there were no declines.

Vaccination records were not linked to screening data in the study by Dr. Brotherton and her colleagues. However, three-dose coverage with the quadrivalent HPV vaccine (Gardasil) is currently estimated at 79% for girls in the first year of high school, and 71% for girls in the last year of high school in Victoria, where the program began in 2007.

The recommended initial screening age for cervical disease is 18 years in Australia; however, some younger girls are screened at the discretion of their health care providers.

After comparing screening results for girls aged 18 years and younger who were screened between 2003 and mid-2007 and between mid-2007 and 2009, after the vaccination program began, the investigators found that the incidence of high-grade abnormalities – cervical intraepithelial neoplasia (CIN) of grade 2 or worse, or adenocarcinoma in situ – dropped from 0.80% (109 of 13,620 girls screened) to 0.42% (23 of 5,538).

The finding, they wrote, "reinforces the appropriateness of the targeting of prophylactic HPV vaccines to pre-adolescent girls."

The researchers also looked at low-grade abnormalities that were reported through cervical screening, and both low- and high-grade abnormalities in women who were older than 18 years of age.

Only women who were younger than 18 years saw improvement in high-grade abnormalities, and no significant decline was noted for low-grade abnormalities in any age group.

In an accompanying editorial, Dr. Mona Saraiya and Susan Hariri, Ph.D., of the Centers for Disease Control and Prevention, urged caution in interpreting the findings.

They said that a demonstrable reduction of the burden of cervical cancer (the main goal of HPV vaccination) will require much more data and several decades to establish.

"The not-so-cautious optimist in us wants to hail this early finding as true evidence of vaccine effect," Dr. Saraiya and Dr. Hariri wrote. "However, individual-level vaccine status was not

considered – as it perhaps should have been in view of the availability of such data in Victoria."

The findings may have been affected by health care providers' screening and managing vaccinated patients less aggressively, "especially girls younger than the recommended screening age of 18 years," Dr. Saraiya and Dr. Hariri argued.

Additionally, "with the almost 40% decrease in the incidence of high-grade cervical abnormalities recorded in girls younger than 18 years, a similar though smaller decrease would be expected in girls in the next oldest age group (those aged 18-20 years), who were likely to benefit from the vaccine and in whom vaccine coverage was high," Dr. Saraiya and Dr. Hariri wrote.

However, the study found no decrease

in this oldest age group.

Dr. Brotherton and her coinvestigators acknowledged that the population-based study design was a weakness, and they noted that further studies linking vaccination and cytology data would be needed to confirm the findings of their study.

However, they wrote, "we believe that our findings have strong biological plausibility and that the specific temporal association, differential by age (which is related to both coverage and likelihood of sexual activity and therefore HPV exposure before vaccination), suggests that the vaccination program caused the decrease."

Human papillomavirus types 16 and 18 can often cause high-grade abnormalities less than a year after infection, they noted. ■

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