Oropharyngeal Cancer Prevalence Much Higher in Men

By Lila Abassi — October 20, 2017

In the last week, the media has extensively covered the increased prevalence of head and neck cancers caused by the human papillomavirus (HPV), in men. This issue garnered extensive media coverage when Michael Douglas revealed his diagnosis of stage four throat cancer was caused by HPV.

A recent study published in the Annals of Internal Medicine discussed the disproportionately high rates of oral HPV-positive squamous cell carcinoma in men. The authors of the study sought to determine just how prevalent oral and genital HPV infections are among American men and women.

HPV is a group of 200 different but related viruses of which 40 are easily transmitted through sexual contact via an infected partner’s skin and mucous membranes through oral, anal and vaginal sex. It is the most common sexually transmitted infection in the United States. Some strains of HPV are more low-risk, non-cancer causing and others are high-risk cancer-causing strains (the two most common high-risk are HPV 16 and HPV 18 serotypes).

The sites in which cancer from an HPV infection occur are the oropharynx, anus, cervix, vagina, and vulva. Of the 38,793 cases of HPV-related cancers diagnosed between 2008 and 2012 in the US, oropharyngeal squamous cell carcinoma (OPSCC) was the most common, with 3100 cases in women and 12,638 cases in men. In women, the incidence (new cases) has plateaued whereas, in men, the incidence of OPSCC has seen dramatic increases, now surpassing the incidence of cervical cancer in women.

Thankfully, the HPV vaccine is available for both sexes from the age of 9 up to 26 years of age in
females and 21 in males. The vaccine protects against serotypes 16 and 18 as well as other high-risk strains and those that cause genital warts. This is great, however, the numbers of those vaccinated have been dismal. For a variety of reasons ranging from the nonsensical to deranged, the vaccine has been met with hesitance and resistance when there really should be none.

The authors of the study examined data from the years 2011 to 2014 provided by the National Health and Nutrition Examination Survey (NHANES [6]) which provides health information for U.S. adults and children. These studies are conducted by the National Center for Health Statistics of the Centers for Disease Control and Prevention. The data collected were also analyzed not only for the prevalence of HPV infection but also how many of those infected had concomitant oral and genital HPV infections.

The study results included data from 4493 men and 4641 women. The overall prevalence of oral HPV infection was 11.5 percent and 3.2 percent in men and women respectively. High-risk strains were also found to be more prevalent in men than women - 7.3 percent in men and 1.4 percent in women. High-risk HPV infections were significantly greater in Black men and those who smoked cigarettes and marijuana (in both sexes). Vaccinations, the authors found, were protective against infections with the HPV subtypes covered by the vaccine.

The prevalence of high-risk oral HPV infections peaked at age 50-54 years in both men and women and the cancer-causing HPV 16 strain was most prevalent in men between 50 - 69 years of age. The prevalence of oral HPV infection was also higher among men with concurrent genital infection. Other factors such as the number of lifetime oral sexual partners and the high prevalence of oral HPV infections in those with genital infections suggest the genital-oral route is the likely mode of transmission.

Armed with these findings, we come to realize how serious HPV infections can be and given how ubiquitous the virus is in the general population, it will be difficult to prevent. Given fears of sexually transmitted infections, the idea of oral sex being a safer bet likely contributed to the higher prevalence of HPV. Asking people to yet again change their sexual practices is not the answer, however. Instead, we should direct more public health efforts toward educating parents about the importance of prevention through vaccines.

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