

For First Time, HPV Shown to Cause Oral Cancers

By Gil Ross — January 22, 2016



A new study published in [JAMA Oncology](#) [1] has, for the first

time, proven that the human papillomavirus, long known to be closely associated with numerous other cancers, is a cause of oropharyngeal cancers which occur in the soft regions of the throat, like the palate and tonsillar areas and head and neck cancers.

The proof came via a simple, yet elegant method.

Researchers at Albert Einstein College of Medicine, Bronx N.Y., used oral rinses supplied by 97,000 people (part of two large study cohorts) who had no evidence of cancer, and assayed them for the presence of the human papillomavirus, or HPV-16. Over the four-year course of the study, oropharyngeal cancer, or OPC, or head and neck squamous cell cancer (HNSCC), were detected in 132 subjects. A randomly selected control group of 396 people who submitted oral rinse specimens but had no cancer, had their specimens assayed for HPV-16. The risk of developing one of the cancers was an astounding 22-fold higher among those positive for HPV-16.

The authors were Ilir Agalliu, MD, ScD and Robert D. Burk, MD, and Susan Gapstur, PhD of the American Cancer Society, and colleagues.

Although deeming an exposure as "causal" from an observational (retrospective, non-randomized study) is generally frowned upon, when the relative risk is as high as 20+ fold, the term causal is applicable. As one of the more prominent examples, the proof that smoking causes lung cancer was based on a case-control study of British doctors quite similar in format to this one.

Until this century, the causes of head and neck cancers were smoking and drinking, but over the past 30 years there has been a sharp spike in these cancers in patients unassociated with those factors. This led experts to look for another explanation. Now, recent studies have led experts to believe [70 percent of all head and neck cancers are caused by HPV](#) [2], likely spread by oral sex. Many cancer epidemiologists believe that by 2020 head and neck cancers will become the most common HPV-related cancers.

It is well-known that HPV types 16 and 18 are strongly linked to cancers of the cervix and ano-rectum in women, and penile cancer in men, as well as genital warts in both genders. Prevention of infection with those serotypes is the indication for the approved vaccines made and marketed by

Merck (Gardasil) and GSK (Cervarix). While no studies have as yet proven that prevention of HPV infection in girls and women by early vaccination will prevent cancer, it seems highly likely that will be the outcome.

So given these data, what's next?

A recommendation might be made to avoid oral sex with a partner whose HPV status is unknown, although that information is hard to find. Using some form of protection seems a better idea, or avoiding oral sex entirely.

Some day, when uptake of the approved HPV vaccines are much more widespread, hopefully this problem oral and pharyngeal cancers will decline significantly, as we hope cervical and anorectal cancers will likely behave as more and more young people get vaccinated. Sadly, at this time the vaccine is under-utilized among girls and rarely given to boys. This must change.

COPYRIGHT © 1978-2016 BY THE AMERICAN COUNCIL ON SCIENCE AND HEALTH

Source URL: <https://www.acsh.org/news/2016/01/22/79208>

Links

[1] <http://oncology.jamanetwork.com/article.aspx?articleid=2482916&resultClick=3>

[2] <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4385715/>