

Rare head and neck cancer linked to HPV, study finds

October 7 2009



The images shows Thomas Carey, Ph.D., and his colleagues in the lab. Credit: University of Michigan Health System

An increase in cases of a rare type of head and neck cancer appears to be linked to HPV, or human papillomavirus, according to a new study from researchers at the University of Michigan Comprehensive Cancer Center.

The study looked at patients with nasopharyngeal cancer, a tumor that grows behind the nose and at the top of the throat, above the tonsils. This rare cancer occurs in less than 1 of every 100,000 Americans.

"Though rare, this is the first report of nasopharyngeal cancer being caused by the HPV epidemic. We are in the middle of a [tonsil cancer](#) epidemic, seeing many patients with tonsil cancer linked to HPV. It turns

out that HPV may also be a new cause of this rare form of cancer that occurs in this hidden location," says study author Carol Bradford, M.D., professor and chair of otolaryngology at the U-M Medical School.

In the study, which appears online in the journal *Head & Neck*, the researchers looked at tissue samples taken before treatment for either nasopharyngeal cancer or tonsil cancer. Of the 89 patients in the study, five had nasopharyngeal cancer, and four of those were positive for HPV.

At the same time, the four HPV-positive tumors were also all negative for Epstein-Barr virus, which has previously been one of the biggest infectious causes of nasopharyngeal cancer.

"Since I began studying head and neck cancer, I have wondered what the cause of Epstein-Barr virus-negative nasopharyngeal tumors might be. This research suggests that there is a changing etiology for nasopharyngeal cancer in the North American population that may mirror the HPV-positive epidemic of tonsil cancer," says study author Thomas Carey, Ph.D., professor of [otolaryngology](#) and pharmacology and co-director of the head and neck oncology program at the U-M Comprehensive Cancer Center.

Overall, about 60 percent of nasopharyngeal cancer patients are alive five years after treatment. In fact, death rates for this type of cancer have declined 4 percent per year. The researchers suspect one potential reason is that HPV-related tumors are more responsive to chemotherapy or radiation than tumors linked to the Epstein-Barr virus.

Because nasopharyngeal cancer is so rare, the authors propose a multi-center trial to recruit more patients to verify the role of HPV in nasopharyngeal [cancer](#).

More information: Head & Neck, published online Sept. 15, 2009,
[DOI:10.1002/hed.21216](https://doi.org/10.1002/hed.21216)

Source: University of Michigan Health System ([news](#) : [web](#))

Citation: Rare head and neck cancer linked to HPV, study finds (2009, October 7) retrieved 6 May 2024 from <https://medicalxpress.com/news/2009-10-rare-neck-cancer-linked-hpv.html>

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