

MATTHEW BAK: So my name is Matthew Bak. I'm a head and neck surgeon with the Department of Otolaryngology at Eastern Virginia Medical School, and I'm here to talk about HPV and its association with oropharyngeal squamous cell carcinoma.

HPV, or human papilloma virus, is a sexually transmitted viral infection. 80% of infections typically clear by 12 months in patients. And most of them, especially oral cavity and oropharyngeal infections, are subclinical, meaning there are no symptoms. And if you've been sexually active, chances are you've had an HPV infection of some kind. The CDC reports over 80% of Americans have been infected by HPV at some point in time.

The humoral immunity prevents infection, which is important, and we'll get to that. And the cellular immunity clears the infection. And we know that persistent infection is associated with malignancy. And this is important because HPV infection is very common, but HPV-associated cancers are, fortunately, more rare.

However, we know that HPV-associated squamous cell cancer of the oropharynx is on the rise. So typically cancers of the oropharynx have been associated with tobacco and alcohol exposure, and the numbers, or the incidence of those cancers, are decreasing over time. But the HPV-associated squamous cell carcinomas are on the rise.

In fact, recently the number of HPV-associated oropharyngeal cancers has passed that of the incidence of HPV-associated cervical cancer. And typically, traditionally we've thought of cervical cancer as the HPV-associated malignancy.

One silver lining is that if you look at the survival rates of patients with HPV-associated squamous cell carcinoma of the oropharynx and compare the survival to the HPV-negative patients, it confers a significant positive impact on their prognosis where cure rates for HPV-associated squamous cell cancer of the oropharynx is like 85, between 80% and 90%, taken all stages, where it's closer to 50% at five years for HPV-negative or tobacco-associated cancers of the throat.

So in my practice, new cancers of the oropharynx, the tonsil, the base of tongue, it's really probably closer to 80% of new tonsil and base of tongue cancers are HPV associated. And unlike cervical cancer, where there is multiple strains of the HPV that can cause cervical cancer or cervical dysplasia, in the oral pharynx it's really 95% of the time it's HPV 16. The kind of clinical presentation-- it's 8 to 1 men to women. These patients are younger, they're white, and are otherwise healthy. They have a good performance status. And, again, the two-year overall survival for HPV-associated cancer of the throat is 95% compared to about 62% in HPV-negative patients.

What I've found in my practice, that it's better to address the association with HPV up front. Otherwise, patients will go online and start googling. We can tell them that HPV infection is common. It's not a indicator of infidelity, and they don't have to change any of their behaviors or sexual practices as a result. They're not contagious to their partner.

And probably the most important thing from a societal standpoint is to promote the HPV vaccine as a cancer-preventing vaccine. So currently, the CDC recommends that the HPV vaccine is given to 11 and 12-year-olds and they receive two doses about six months apart. If you get it a little bit later, they need three doses approximately six months apart apiece. And they've recently approved to give the vaccine up to-- both men and women up 45 years old. So I will actually be getting my HPV vaccine next week.

So the idea is to get them young before they're sexually active. And also, at that age, they're going to generate a stronger immune response, and 11 and 12-year-olds are more likely to follow up with their doctor than 17, 18, 19-year-olds.

So the CDC's goal of 80% vaccination rate is where we're falling way behind, especially in the male population. It is a very effective vaccine. There is not data yet to show that it reduces the incidence of oropharyngeal cancer, but there is data to show that it reduces the incidence of cervical cancer and precancerous lesions of the cervix. So it is an effective vaccine. It's safe. It's effective.

In conclusion, HPV-associated oropharyngeal cancer incidence is on the rise. We need to counsel our patients appropriately, treat them appropriately, and promote the HPV vaccine as an anti-cancer vaccine as opposed to an anti-HPV infection vaccine.