

In adult patients with squamous cell carcinoma of the oropharynx, does an HPV positive tumor result in a higher or lower cure-rate compared to those that are HPV negative?

Fatima Moon

The University of Texas Medical Branch, USA

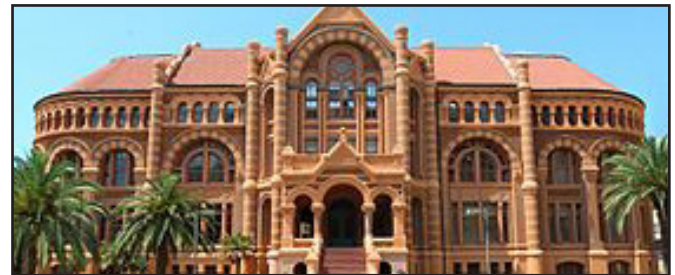
Abstract:

Background: Human-papillomavirus (HPV) is a causative agent of up to 70% of oropharyngeal cancers. Previous studies show that patients with HPV+ tumors respond positively to chemoradiation and that the presence of HPV produces a favorable prognosis, but there has yet to be a concrete reason for why this is.

Purpose: The purpose of this group's research study was to compare the survival rates of patients with HPV+ and HPV- HNSCC, to investigate why the HPV+ subtype had a favorable prognosis, and to evaluate what kind of treatment plan would produce a favorable prognosis for all subtypes.

Materials and Methods: Our research was conducted with PubMed using the following terms: HPV, oropharyngeal cancer, head and neck, and squamous cell carcinoma. Our search included articles published within the past ten years, free full-text, and having human subjects. Meta-analyses and systematic reviews were excluded. Of the 814 articles found, 322 articles met our inclusion criteria.

Results: The studies showed HPV+ oropharyngeal tumors have a more favorable survival rate and prognosis compared to HPV- oropharyngeal tumors. HPV+ tumors



are more sensitive to radiation therapy and cisplatin compared to HPV- tumors.

Conclusion: Patients with HPV+ HNSCC have a higher cure and survival rates than those affected by HPV- HNSCC due to improved cellular penetration with chemotherapy and increased cell cycle cessation with radiation treatment. Future researchers should aim to differentiate therapies and treatment guidelines specifically for HPV+ HNSCC to further improve survival rates for those affected by this disease.

Publication of speakers:

1. Fatima Moon, Pai SI, Westra WH. Molecular pathology of head and neck cancer: implications for diagnosis, prognosis, and treatment. *Annu Rev Pathol.* 2009; 4:49-70. doi:10.1146/annurev.pathol.4.110807.092158