

HPV infection is associated with head and neck cancer

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The management of some head and neck cancer is challenging because the anatomical location of the disease might involve the neck, where the airway, important vessels, and major nerves cross. Therefore, the primary prevention of head and neck cancer is a superior method to avoid the dilemma condition.

It is probable there are multiple risk factors for head and neck cancer, and one of them is HPV infection. A study published in 2019 (Tsai et al., 2019) found HPV infection was associated with an increased risk for head and neck cancer in females (adjusted HR, 1.520, 1.166-1.981). However, this study did not find a significant association between HPV infection and risk for head and neck cancer in males (adjust HR, 1.000, 0.815-1.228). The sample size of this study was large (25520 infected vs 1061817 non-infected). Data from another smaller retrospective study (Kreimer et al., 2013) shows a high association between HPV serology-positive and the risk of head and neck cancer (overall crude OR, 13.53, 12.84-14.24), compared with HPV serology-negative. Finally, a meta-analysis (Dayyani et al., 2010) found, compared with negative controls, that those with HPV-16 infection had an increased risk for head and neck cancer (synthesized OR, 4.44, 2.87-6.02).

Additionally, some survival studies compared the overall mortality between head and neck cancer survivors with different HPV status. Interestingly, a retrospective cohort study (Li et al., 2018) found HPV positivity was associated with improved survival in some subtypes of head and neck cancer. For example, HPV-positive patients with oropharynx had a significant survival benefit compared with those HPV-negative (unadjusted HR, 0.44, 0.41-0.47). However, the results reported in this study did not adjust potential confounders. Similarly, the same meta-analysis mentioned above (Dayyani et al., 2010) had a consistent result showing HPV-positive

patients had an overall superior survival outcome (synthesized adjusted HR, 0.41, 0.27-0.56).

In conclusion, there is some evidence supporting the association between HPV infection and the risk for head and neck cancer.

References

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