

Human papillomavirus infection

Human [papillomavirus](#) infection (HPV infection) is an infection caused by human papillomavirus (HPV), a DNA virus from the Papillomaviridae family.

About 90% of HPV infections cause no symptoms and resolve spontaneously within two years.

However, in some cases, an HPV infection persists and results in either warts or precancerous lesions.

These lesions, depending on the site affected, increase the risk of cancer of the cervix, vulva, vagina, penis, anus, mouth, tonsils, or throat

Nearly all cervical cancer is due to HPV; two strains, HPV16 and HPV18, account for 70% of cases.

HPV16 is responsible for almost 90% of HPV-positive oropharyngeal cancers, and the prevalence is higher in males than females. Between 60% and 90% of the other cancers listed above are also linked to HPV.

HPV6 and HPV11 are common causes of genital warts and laryngeal papillomatosis.

Human [papillomavirus](#) (HPV) is involved in the [pathogenesis](#) of many [cancers](#) and has a high prevalence in patients with cervical and oral cancer in [Pakistan](#).

The objective of a study of Adnan et al. was to identify the prevalence of HCMV and HPV in Pakistani patients with primary [Glioblastoma](#).

In total, 112 primary Glioblastoma biopsies were analyzed. HCMV and HPV infection was investigated using nested and conventional polymerase chain reaction, respectively. Positive HPV samples were further confirmed through sequencing. HPV status was correlated with histology and expression of other frequently mutated Glioblastoma molecular markers.

The study comprised of 68% male and 32% female patients. HCMV was detected in only 1 patient whereas HPV infection was present in 28% of patients with no cases of HPV and HCMV coinfection. We report for the first time that a majority of HPV-positive patients with Glioblastoma harbored types 16 and 18 both. Among them, 16% were HPV-type 16 and 20% were HPV-type 18. Patients infected with HPV had longer survival times, but this was not statistically significant. The most commonly overexpressed molecular marker in HPV-positive patients was cyclo-oxygenase-2, and no histologic changes were seen in HPV-positive Glioblastoma cases.

The presence of a single HCMV positive is intriguing. In addition, they discovered a substantially high 28% prevalence of HPV in Glioblastoma patients. The role of viruses in gliomagenesis warrants further investigation ¹⁾.

Human papillomavirus-related multiphenotypic sinonasal carcinoma

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Adnan Ali SM, Mirza Y, Ahmad Z, Zahid N, Enam SA. Human Papillomavirus and Human Cytomegalovirus Infection and Association with Prognosis in Patients with Primary Glioblastoma in Pakistan. World Neurosurg. 2019 Jan;121:e931-e939. doi: 10.1016/j.wneu.2018.10.018. Epub 2018 Oct 12. PubMed PMID: 30321676.

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