

High-risk HPV prevalence in Pakistani females highlights need for robust cervical cancer screening

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Abstract

Introduction The human papillomavirus (HPV) is the most prevalent viral sexually transmitted infection globally, with cervical cancer being primarily caused by persistent HPV infection. Early diagnosis and monitoring of women with HPV infection can significantly improve treatment outcomes and lower mortality rates. This study aimed to determine the prevalence of HPV in cervical specimens sent to Aga Khan University Hospital Clinical Laboratories for diagnostic testing. **Methods** A retrospective review of 1062 test records from 2017-2022 was conducted, with high-risk HPV DNA testing performed by DNA Hybrid Capture 2 method. **Results** Out of 1062 patients, 764 underwent a Pap smear test, with 14.9% having abnormal epithelial lesions. High-risk HPV DNA was detected in 180(16.9%) cases, and biopsy findings were available in 118 specimens (11.1%). Squamous intraepithelial lesions were the most common biopsy finding, followed by non-specific cervicitis (36, 30.5%), squamous cell carcinoma (16, 13.6%), and adenocarcinoma in (6 ,5.1%) women. HPV positivity was correlated with cervical cytology and biopsy findings. **Conclusions** The data shows a strong correlation between hrHPV positivity and neoplasia in women tested in Pakistan, suggesting a delay in HPV detection. Routine HPV testing is strongly advised for women to screen for cervical cancer. Early diagnosis of high-risk HPV strains can improve triage, treatment, and follow-up of infected patients. Raising public awareness of the value of routine testing, early detection, and treatment of cervical cancer and HPV can significantly lower morbidity and mortality rates.

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