

## Human papillomavirus genotype profiles and cytological grades interlinkages in coinfection with HIV

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**Introduction:** the study aimed to examine and characterize human papilloma virus (HPV) cytological grade trends and genotypes among HPV/HIV co-infected/cases and HPV monoinfected/control women attending Kisii Teaching and Referral Hospital, Kenya.

**Methods:** HIV positive co-infected with HPV (HPV/HIV) and HIV negative women monoinfected with HPV profiled as co-infected/cases and monoinfected/control arms respectively were enrolled. HPV subtypes were assayed by Xpert® HPV system (GXHPV-CE-10) alongside pathological cytology analysis of cervical tissue samples.

**Results:** low grade intraepithelial lesion (LSIL) was the most predominant cytological grade across cases and controls with a prevalence of 32 (38.1%) while high grade squamous intraepithelial lesion (HSIL) was highest among HPV/HIV co-infected with a prevalence of 23 (27.38%). Among the monoinfected (controls) the predominant lesion was low grade intraepithelial lesions (LSIL) with a prevalence of 23 (27.38%). HPV type 16 had the highest prevalence 26 (30.8%) among the VIA positive women in the overall study participants followed by combinations of HPV types (16, 18/45) at 19 (22.6%).

**Conclusion:** high risk HPV types 16 and 18/45 were the most predominant in the established cytological grades and among the co-infected women. Routine screening using both cytological and HPV testing should be embraced and/or reinforced as early screening and preventive strategies in the covered geographical region population. Provision of the currently available vaccines to these women at an early age would provide effective protection since the HPV type profiles in this population are covered by such vaccines.

**Full text:** <https://www.panafrican-med-journal.com/content/article/35/67/full/>