

Abstract

BACKGROUND:

We assessed the association of human papillomavirus (HPV) infection and cervical intraepithelial neoplasia (CIN) with various characteristics, CD4 count and use of combination antiretroviral therapy (cART) among HIV-positive women.

METHODS:

Cross-sectional study of 498 HIV-positive women who underwent HPV PCR-based testing, cytology, and systematic cervical biopsy.

RESULTS:

In all, 68.7% of women were HPV-positive, 52.6% had high-risk (hr) HPV, and 40.2% multiple type infections. High-risk human papillomavirus-positivity did not vary significantly by age but it was negatively associated with education level. The most frequent types in 113 CIN2/3 were HPV16 (26.5%), HPV35 (19.5%), and HPV58 (12.4%). CD4 count was negatively associated with prevalence of hrHPV ($P < 0.001$) and CIN2/3 among non-users of cART ($P = 0.013$). Combination antiretroviral therapies users (≥ 2 year) had lower hrHPV prevalence (prevalence ratio (PR) vs non-users = 0.77, 95% confidence interval (CI): 0.61-0.96) and multiple infections (PR = 0.68, 95% CI: 0.53-0.88), but not fewer CIN2/3. The positive predictive value of hrHPV-positivity for CIN2/3 increased from 28.9% at age < 35 years to 53.3% in ≥ 45 years.

CONCLUSION:

The burden of hrHPV and CIN2/3 was high and it was related to immunosuppression level. Combination antiretroviral therapies (≥ 2 year) use had a favourable effect on hrHPV prevalence but cART in our population may have been started too late to prevent CIN2/3