

Human Papillomavirus Detection and Genotyping by Hybrid Capture II in the Cervical Smears of Women at High-Risk for HIV Infection

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ABSTRACT The purpose of this study was to detect and genotype the high-risk human papillomaviruses (HPVs) present in cervical cells of women with or without human immunodeficiency virus (HIV) infection using hybrid capture (HCII) assay system and also to assess the HPV viral load. Cervical specimens of 100 women (55 HIV seropositive; 45 HIV seronegative) were collected to detect HPV using HCII (Digene corp., USA) high-risk RNA probe cocktail. HPV genotypes were identified using the type specific RNA probes. The ratio of relative light units (RLU) of the specimens and the mean of RLU of three positive controls were taken as a measure of HPV viral load. High-risk HPVs were detected in 46% of the women. Cervical HPV infection was significantly ($p < 0.05$) more prevalent (52.7%) in the HIV infected women than among the uninfected (37.8%). Compared to the seronegatives, HIV seropositive women had more of infection with HPV 16 (20% vs. 8.88% $p < 0.05$), HPV 18 (21.8% vs. 4.44% $p < 0.01$) and of more than one HPV type (25.45% vs. 13.33% $p < 0.05$). A higher HPV viral load was also found in the HIV positive (532.69 vs. 317.86) women and in those infected by multiple HPV types (505.29, $p < 0.05$).