

ers the Spectrum of HPV Subtypes Found in Cervical Smears and Carcinomas from Kenyan Women.,

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Abstract:

Infection with high risk HPV is implicated in pre-cancerous squamous intraepithelial lesions and their progression to cervical cancer. In the developed countries, infection with HPV 16 and 18 accounts for ~70% of cervical cancers, but it has been established that HPV type prevalence differs according to worldwide geographical location. In sub Saharan Africa infection with HPV is known to be augmented by HIV, which is endemic in this region. It is not yet clear, however, whether this ultimately influences progression to cervical cancer. Papillocheck(TM) and multiplex PCR were used to determine the range of HPV genotypes found in cervical smears and carcinomas from HIV positive and negative Kenyan women. Smear samples from HIV-positive women had a higher prevalence of: multiple HPV infections; high-risk HPVs 52, 58, 68, potential high risk 53/70, low-risk 44/55 and abnormal cytology compared to HIV-negative women. A low overall prevalence (~8%) of types 16/18 was found in all smear samples tested (n = 224) although this increased in invasive cervical carcinoma tissues to ~80% for HIV-negative and ~46% for HIV-positive women. Furthermore, HPV45 was more common in cervical carcinoma tissues from HIV-positive women. In summary HIV infection appears to alter the spectrum of HPV types found in both cervical smears and invasive cervical carcinomas. It is hypothesised there could be a complex interplay between these viruses which could either positively or negatively influence the rate of progression to cervical cancer