

Prevalence and genotype diversity of anal HPV infection among HIV-infected women in Belém, Pará, North of Brazil

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The high prevalence and diversity of anal Human Papillomavirus (HPV) infection have been observed in women infected with the human immunodeficiency virus (HIV) and little is known about the epidemiology of anal HPV infection among HIV-infected women in North Region of Brazil. The objective of this cross-sectional study was to determine the prevalence of anal HPV infection, genotypes diversity and its relationship with demographic aspects of HIV-infected attending in Belém, Pará, Brazil. A questionnaire regarding socio-demographic variables and sexual behavior was used and anal samples were collected from 108 women recruited from a HIV counselling and testing in the Belém, Pará, an important metropolis of the northern region of Brazil. A blood sample was also obtained to determine CD4⁺ T-cell counts and viral load levels of HIV. HPV DNA was detected by PCR amplification of a conserved region of the HPV L1 gene and further genotyped with direct DNA sequencing. HPV infection was detected in 29 (26,8%) women and HPV types were identified in 20 samples. Twelve different types were found (HPV-16, 58, 59, 6, 11, 53, 61, 62, 66, 70, 71, 102) and low risk types were present in 85% of samples. Time of early first intercourse was associated with HPV infection. In conclusion we found a low prevalence of HPV infection and low risk types in this cohort and we emphasize the relevance of implementation of screening program for anal cancer and HPV infection in HIV-infected women population.

Keywords: anal HPV infection, genotypes, HIV, women

Development Agency: CNPq, UFPA