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Burden and genotype distribution of High Risk Human Papillomavirus and cervical cytology abnormalities at selected obstetrics and gynecology clinics in Addis Ababa, Ethiopia

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Background: Cervical cancer is a preventable disease affecting an estimated 530,000 women each year & leading to nearly 275,000 deaths. Human papillomavirus (HPV) has been recognized as an important cause of cervical cancer & it is implicated in 99.7 % of cervical squamous cell cancer cases worldwide. In Ethiopia, every year 7095 women diagnosed with cervical cancer and 4732 die from the disease. Very low screening practice & inadequate screening coverage in Ethiopia makes cervical cancer as one of the major public health concern. This study was aimed to assess the prevalence & genotype distribution of High-Risk Human papillomavirus (HR HPV) & Cervical Cytology abnormalities at selected Obstetrics & Gynecology clinics in Addis Ababa, Ethiopia.

Methods: Institutional based cross-sectional study design was used from June to October 2015. Cervical samples were collected using Abbott Cervi-cyst collection material for HR HPV DNA & cytobrush for Pap smear screening. A total of 366 participants were enrolled based on the set inclusion criteria. HR HPV DNA was analyzed using Abbott Real-Time PCR & cervical cytology screening was made using conventional Pap smear techniques. Data entry & analysis was made using Epi-data ver 3.1 & STATA ver 11.0 respectively.

Results: The overall HR HPV prevalence was 13.7% (50/366), with 76% (38/50) of other HR HPV genotypes. Abnormal cytology was observed in 13.1% (48/366) with 81.3%, 12.5%, and 6.3%, are LSIL, ASCUS and HSIL respectively. In this study, Non-16/18 genotypes contributed the largest proportion of the overall HR HPV. The highest frequency of HR HPV positives was women without cervical cytology abnormality. The overall percent agreement between HR HPV DNA PCR and conventional Pap smear cytology was 78% ($\kappa=0.12$).

Conclusion and recommendations: "Other High-Risk Human papillomavirus" genotypes contributed the largest proportion of the HR HPV positive study population. The age range of 30-65 years has the highest proportion of HR HPV positivity. Address, occupation, and HIV serostatus were found to be potential risk factors for the prevalence of HR HPV, and age, age at first marriage, and education were significantly associated with cervical cytology abnormalities. The national preventive health policy towards such public health burden shall be in place and programmatic approaches should consider the screening methods for women especially living in urban areas like Addis Ababa. Further evaluation between the two screening methods against a perfect reference method shall be needed.

Biography

Kirubel Eshetu is currently working in the International Clinical Laboratories, Ethiopia. His areas of interest are Gynecology, Pathology etc.

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