

EP085/#241

EVALUATION OF HPV TYPES AMONG WOMEN ENROLLED IN THE MULHER CERVICAL CANCER SCREENING STUDY IN MOZAMBIQUE

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10.1136/ijgc-2023-IGCS.189

Introduction The objective of our study is to describe the high-risk human papillomavirus (HR-HPV) types noted among women enrolled in the MULHER Study, a prospective trial of Mozambican women undergoing cervical cancer screening with HPV testing in conjunction with family planning services.

Methods From January 2020 to January 2023, 9,014 women aged 30–49 years in Maputo City and Gaza Province, Mozambique underwent cervical cancer screening. Cervicovaginal samples were self-collected (97.5%) or provider-collected (2.5%) and primary HPV testing was performed using the GeneXpert HPV testing platform (Cepheid Inc, Sunnyvale, CA, USA) which provided genotyping for HPV16, HPV18/45 and non-16/18/45. Women with positive HPV testing underwent visual assessment for treatment (VAT) using visual inspection with acetic acid (VIA) and treated with ablation or excision as appropriate.

Results Of the 9,014 women enrolled, 2,805 (31.1%) tested positive for at least one HR-HPV type: HPV16 (n=477, 17%), HPV18/45 (n=688, 24.5%) and non-16/18/45 (2,157, 76.9%). 23.2% of participants with HR-HPV had multiple types present. HR-HPV infection was more frequently observed among women living with HIV (WLWH) compared with HIV-negative women (39.5% vs, 24.2% respectively; $p < 0.001$), with non-16/18/45 also being the most frequent type in this population (69.6%). Among women with cancer, HPV16 was the most frequent type noted (58%).

Conclusion/Implications Our findings suggest that non-16/18/45 was the most frequent HR-HPV type among women in our study cohort in Mozambique overall; and HPV16 is the most common among women with cervical cancer. Further study is needed to determine the role of HR-HPV genotyping in follow-up and treatment, particularly among WLWH in Mozambique.

EP086/#497

SCALING CERVICAL CANCER SCREENING IN MOZAMBIQUE: ANALYSIS OF LOOP ELECTROSURGICAL EXCISION PROCEDURE (LEEP) SPECIMENS

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10.1136/ijgc-2023-IGCS.190

Introduction As cervical cancer screening programs are implemented, an increasing number of women require loop electro-surgical excision procedure (LEEP). Our objective was to describe the pathologic results of LEEP specimens performed as part of the MULHER Study, a prospective trial of primary HPV testing for cervical cancer screening in Mozambique.

Methods 9,014 women underwent HPV testing followed by thermal ablation for those with positive results. 169 women had cervical lesions ineligible for ablation and underwent LEEP. Pathology reports were reviewed for specimen size/volume, number of pieces, pathologic diagnosis and margin status. A multivariable regression analysis was performed to identify variables associated with positive margins.

Results The median age was 38 years (range 30–49). 65.1% were women living with human immunodeficiency virus (HIV). Pathologic diagnosis was available for 154 patients and included carcinoma (n=6, 3.9%); cervical intraepithelial neoplasia (CIN)2–3 (n=75, 48.7%); CIN1 (n=67, 43.5%) and normal/benign findings (n=6, 3.9%). 31.8% of LEEP specimens were removed in >1 piece. The mean specimen volume was 2.9 mm³ (range 0.2–15.0). LEEP margin status was available for 130 patients. Positive margins (ectocervical/endocervical only, or both) were noted in 76 (58.5%) patients and associated with HIV+ status ($p = 0.0499$) and a diagnosis of CIN2 or worse ($p = 0.0197$). There were no associations between margin status and age, number of pieces or specimen volume.

Conclusion/Implications There were a high number of LEEP specimens with positive margins. As cervical cancer screening programs are scaled in Mozambique and other lower-resource countries, there is a need to train providers to perform high-quality LEEP as well as accurate pathologic interpretation.