

families, Ministry of Health, and sponsors, engagement of local organizations in Angola, integration of SCD care into primary care, and investigation of rapid low-cost methods to diagnose sickle cell disease. **Funding:** Chevron Corporation, Angola Ministry of Health, and Texas Children's Hospital.

Abstract #: 01NCD027

Recurrence of cervical intra-epithelial lesions after thermo coagulation in HIV+ and HIV- Nigerian women

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Background: Cervical cancer remains a leading cause of morbidity and mortality globally. Prevalence of Cervical Intraepithelial Neoplasms (CIN) is between 6-8% in Nigeria; with ~10% of high grade lesions progressing to cancer if untreated. HIV infection may play a role in the recurrence of cervical Intra-epithelial lesions following treatment. Screening programs utilizing Visual Inspection with 5% Acetic Acid (VIA) or Lugol's Iodine (VILI) followed by thermo-coagulation (or cryotherapy) for positive lesions are considered viable options for low-resource settings because of cost and practicability. Studies of recurrence following thermo-coagulation in low-resource settings are scarce. **OBJECTIVES:** To investigate the factors associated with recurrence of VIA or VILI positive lesions following treatment with thermo-coagulation in HIV positive and HIV negative Nigerian women.

Methods: A retrospective cohort study of women who were screened in the cervical cancer "see and treat" program of the Institute of Human Virology Nigeria was conducted. We collected data from 5 sites over 4 years in Nigeria: National Hospital Abuja, University of Abuja Teaching Hospital, Garki Hospital Abuja, Federal Medical Centre Keffi and Mother and Child Hospital, Ondo. Inclusion criteria were age ≥ 18 years, baseline HIV status known, VIA/ VILI positive and had thermo-coagulation. We performed logistic regression to examine the proportion of women who returned for scheduled follow-up, those with recurrence and factors associated with recurrence. Ethical clearance was obtained from the Institutional Review Board (IRB) of the University of Maryland Baltimore and the National Health Research Committee (NHREC) of Nigeria.

Findings: Overall, 5,190 women were screened, 7.7% (398/5190) of these were VIA/VILI positive. 65.8% (262/398) had thermo-coagulation (109 were ineligible for thermo-coagulation, 17 did not consent). 67.6% (177/262) were followed up for at least 6 months. Of the 177 included in study, 67.8% (120/177) were HIV positive and 32.2% (57/177) were HIV negative; Mean age (SD) was 34.9 (7.4) years and median follow up time was 531 days (IQR=673). Recurrence occurred in 16.4% (29/177) of participants and was higher in HIV positive women (18.3%) compared to HIV negative women (12.3%) but this was not statistically significant (p-value 0.31). Women aged ≥ 30 years were much less likely to develop recurrence, OR = 0.28 (95%CI = 0.12, 0.65). Among HIV positive women, CD4 cell count < 200 cells/mm³ was associated with recurrence, OR = 3.68 (95%CI = 1.15, 11.7).

Interpretation: Recurrence of VIA/ VILI positive lesions after thermo-coagulation occurs in a significant proportion of women. A high

proportion of VIA/VILI positive women did not return for follow up visits highlighting the challenge of effective screening programs in this population and the need to continue research into most appropriate screening strategies. HIV positive women with low CD4 counts are at increased risk of recurrent lesions and may be related to immunosuppression.

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Maternal obesity in Africa: Is it time to pay more attention?

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Background: Many African countries are experiencing a double burden of under- and over-nutrition due to factors such as globalisation, urbanisation, changing diet, and cultural perceptions of weight. Pregnancy is a trigger point for the development of obesity, and maternal obesity is associated with short- and long-term adverse effects in the mother and child. However, while the effects of maternal under-nutrition are well known and addressed, there is scarcity of data on maternal obesity in African countries. Nigeria, Africa's most populous country is experiencing rising levels of obesity and efforts to prevent and manage obesity in pregnancy are urgently needed in Nigeria. The study aimed at identifying the components of an intervention for maternal obesity in Nigeria which may be subsequently adapted to similar African countries. The objectives were to assess the prevalence, effects and distribution of maternal obesity; assess the knowledge, attitude and practice of pregnant women and maternal healthcare providers and identify existing interventions for maternal obesity.

Methods: A systematic review and meta-analysis on maternal obesity in Africa was conducted. Following on the results of this review, a cross-sectional observational study utilising both quantitative and qualitative research methods was done. For the cross-sectional study, eight hospitals across Nigeria were selected via multi-stage random sampling. A questionnaire survey of pregnant women and semi-structured interview of maternal health care workers was conducted. Data from the questionnaire survey is being analysed with SPSS using appropriate tests while thematic analysis is being conducted for the interviews.

Findings: Twenty-nine studies were included in the systematic review. Prevalence of maternal obesity across Africa ranged from 6.5% to 50.7%, using body mass index and weight measurements at different gestational ages. Pregnant women who were older, urban dwellers and had higher parity were more likely to be obese than non-obese. Meta-analysis showed increased odds of adverse maternal and child outcomes for obese pregnant women. However, new-borns with significantly lower birth weight were more likely to have non-obese mothers than obese mothers. Questionnaires were completed by 474 pregnant women, and twenty-two health care workers were interviewed until data saturation. Data analysis is presently being conducted. Emerging themes from qualitative study show that barriers to achieving ideal weight in mothers include booking for antenatal care late in pregnancy, and insufficient knowledge on the management of maternal obesity by health care workers.

Interpretation: Culturally adaptable/sensitive interventions should be developed for the management of obese pregnant women in Africa. Education and training of health care workers on efficient and effective interventions may assist health workers in ensuring women are supported to provide optimal maternal and infant health outcomes.