

*Incidence of VIA Positivity in HIV Positive Women Under the Age of 25 in Neno, Rural Malawi*

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**Abstract**

**Objective:** There is a paucity of data regarding cervical cancer screening in HIV positive women less than 25 years old. Cervical cancer in HIV positive women is known to start at a younger age and progress more rapidly despite adequate antiretroviral treatment, but data in this cohort is limited and lower age limits for screening are difficult to determine. The aim of this study was to determine the incidence of HIV positive women under the age of 25 who test positive for visual inspection with acetic acid (VIA) or have biopsy proven cervical dysplasia.

**Methods:** Retrospective register review of all patients under the age of 25 with VIA screening in the past 2 years (March 2017 to February 2019) at Neno District Hospital, rural Malawi. All women under the age of 25 were recorded and separated them by HIV serostatus. Proportion of women in each group who were VIA negative, VIA positive, suspected cervical cancer, and results of cervical biopsy were compared.

**Results:** A total of 232 women <25 years old were screened for cervical cancer with VIA in 2 years with 182 (78%) women HIV negative, and 50 (21%) women HIV positive. In both the HIV positive and HIV negative groups, there were 2 patients who were VIA positive, respectively. Neither group had biopsy proven cervical cancer; in the HIV negative group, 1 patient (0.5%) was suspected of having cervical cancer but the biopsy returned cervical condyloma. In the HIV positive group, no patients were suspected of cervical cancer and therefore no

biopsies were taken. There were no statistically significant differences in the proportions of VIA positivity between either group (p=0.16).

**Conclusions:** These data demonstrate that the risk of cervical dysplasia, cancer, and VIA positivity is very low in patients less than 25 years old regardless of HIV serostatus.



Table 1: Women < 25 years old who underwent VIA screening

	HIV neg (%)	HIV pos (%)
<b>Total # Screened</b>	182	50
<b>VIA neg</b>	176 (96%)	47 (94%)
<b>VIA pos</b>	2 (1.1%)	2 (4%)
<b>CA suspect</b>	1 (0.55%)	0 (0%)
<b>Either VIA + or CA suspect</b>	3 (1.6%)	2 (4%)
<b>Other Gyn</b>	3 (1.6%)	1 (2%)
<b>Biopsy proven CA or pre-cancer</b>	0 (0%)	0 (0%)



HIV + women:

4. > 25, HIV+, "needs repeat biopsy"

	< 25 yo	> 25 yo	Total Negative:	P value
Total Screened #	50	843	896	
VIA neg	47 (0.94 or 94%)	779 (0.92 or 92%)	826	P = 0.61
VIA pos	2 (0.04 or 4%)	43 (0.05 or 5%)	45	P = 0.73
CA suspect	0 (0 or 0%)	14 (0.017 or 1.7%)	14	P = 0.35
Either VIA + or CA suspect	2 (0.04 or 4%)	57 (0.068 or 6.8%)	59	P = 0.44
Other Gynae	1 (0.02 or 2%)	7 (0.008 or 0.8%)	8	
Biopsy proven CA or precancer	0 (0 or 0%)	8 (0.009 or 0.9%)	8	

- 5. > 25 yo, HIV +, negative biopsy result
- 6. > 25, HIV+, cervicitis
- 7. < 25, HIV-, cervical wart
- 8. > 25yo, HIV+, Cervical cancer (had surgery at QECH)
- 9. > 25, HIV unknown, invasive SCC - palliative care
- 10. > 25, HIV +, SCC (1B1)
- 11. > 25, HIV unknown, ISCC, 1B1
- 12. > 25, HIV+, CIS, hyst
- 13. > 25, HIV+, ISCC, 2A2
- 14. > 25, HIV+, ISCC, 3A

**Precancer**

15. > 25, HIV+, CIN 3, CKC

	< 25 yo*	> 25 yo**	P value:
Total Screened	232	843	-
VIA +	4	43	-
CA suspect	1	14	-
Lost to follow up	0	4	-
Biopsy proven cancer	0	7	-
Biopsy proven cervical dysplasia	0	1	-
Negative	1	2	-

CA suspect + HIV positive

	Lost to follow up	SCC	Precancer	Noncancerous
Age < 25 yo	0	0	0	1
Age > 25 yo	4	7	1	2

\*includes HIV neg and HIV pos patients

\*\*includes only HIV pos patients

**CA Suspects**

Lost:

- 1. > 25 yo, HIV+, lost to follow up, no biopsy
- 2. > 25, HIV +, no biopsy result
- 3. > 25, HIV+, no biopsy done