

MEETING ABSTRACTS

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# A higher proportion of squamous intraepithelial lesion of the cervix in symptomatic HIV-infected women at a tertiary health center in Tanzania

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## Background

Many study reports have associated cervical squamous intraepithelial lesion (SIL) and HIV infection [1,2]. In Tanzania, however, there are limited and conflicting published reports on the association between HIV infection and SIL [3]. A study was conducted to determine the proportion and severity of SIL in HIV-infected women attending a cervical cancer screening clinic at Kilimanjaro Christian Medical Center (KCMC) in

Tanzania. A total of 214 women 18 to 60 years old, among whom 99 (46.3%) and 115 (53.7%) were HIV-seropositive and HIV-seronegative, respectively, were recruited in the study. Blood samples were taken to associate SIL and degree of HIV infection by CD4+ T lymphocyte counts. Structured questionnaires with socio-demographic characteristics were administered while cervical smears were taken from all women to determine and grade the degree of SIL. High-grade and

**Table 1 Relationship between HIV serostatus and cervical SIL (n, 214)**

Variable	Total	Pap results		Chi-square	p-value	OR (95% CI)
		SIL	Normal			
		No (%)	No (%)			
HIV-seropositive	99	32 (32.3)	67 (67.7)			
HIV-seronegative	115	4 (3.5)	111 (96.5)	31.5	<0.001	13.3 (4.2-46.4)

Note; Pap = Papanicolous smear; SIL = Squamous Intraepithelial Lesion.

**Table 2 Relationship between SIL and HIV disease progression according to CD4+ T lymphocyte count (cells/microL)**

Variable	Total	PAP smear results		Chi-square	p-value
		SIL	Normal		
		No. (%)	No. (%)		
<i>CD4+ T lymphocyte cell Count (cells/microliter):</i>					
Less than 200	31	18 (58.1)	13 (41.9)		
200-499	49	32 (32.3)	38 (77.6)		
500 or more	19	4 (3.5)	16 (96.5)	13.9	0.001

Note: PAP = Papanicolous; SIL = Squamous Intraepithelial Neoplasia.

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**Table 3 Relationship between degree of SIL and degree of HIV progression (n=99)**

Variable	Total	PAP smear results			Chi-square	p-value
		HGL No. (%)	LGL No. (%)	Normal No. (%)		
<i>CD4+ T lymphocyte cell Count (cells/microliter):</i>						
Less than 200	31	7 (22.6)	11(35.5)	13 (14.9)		
200-499	49	4 (8.2)	7 (14.3)	38 (77.6)		
500 or more	19	1 (5.3)	2 (10.5)	16 (84.2)	14.0	0.007

Note: PAP = Papanicolous; HGL = High-Grade Squamous Intraepithelial Lesion; LGL = Low-Grade Squamous Intraepithelial Lesion.

low-grade squamous intraepithelial lesions were regarded as abnormal smear. Overall proportion of SIL was 17%. Proportion of SIL among HIV-seropositive subjects was 32% versus 4% in seronegative subjects (OR=13.3, 95% CI=4.2-46.4) (see Table 1). Low CD4+ T lymphocyte cell count was associated with higher proportion of SIL ( $p=0.001$ ) (see Table 2). The relationship between CD4+ T lymphocyte cell counts and the severity of cervical SIL was significant ( $p=0.007$ ) (see Table 3). Marital status and number of lifetime sex partners were risk factors significantly associated with SIL ( $p=0.004$  and  $0.005$ , respectively). There was no association between SIL with age, education level, parity, or age at sex debut.

## Conclusion

SIL diagnosis was significantly associated with HIV infection with inverse relationship between HIV disease progression and degree of SIL. These findings underscore the need for HIV screening among women with SIL, and the need for cervical cancer screening in HIV-infected women. Marital status and number of lifetime sex partners were significant risk factors associated with SIL.

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