Prevalence And Risk Factors For Pre-malignant Cervical Lesions In HIV Infected Women?

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Background

- Cervical cancer is the leading cancer and the most common malignant cause of death in South African women
- Cervical cancer can be cured if detected in pre-malignant stages
- Premalignant phases:
  Squamous Intraepithelial Lesions (SIL)
  - **Low Grade SIL (LSIL)**: HPV infection, CIN1, Mild dysplasia
  - **High Grade SIL (HSIL)**: Moderate and severe dysplasia, CIN2+3 and in situ carcinoma of the cervix
- Likely that HIV-infected women have more rapid progression of pre-malignant lesions to invasive carcinoma
- Current cervical screening guidelines:
  - **South Africa**: 3 Cervical smears in a woman's lifetime (ages 30, 40, 50)
  - **WHO**: One smear between ages 35-54

Aims

To determine:

1. The prevalence of pre-malignant cervical lesions in HIV-infected women
2. Risk factors for squamous intraepithelial lesions- high grade (HSIL)

Setting: HIV Wellness services

Two South African HIV/AIDS Wellness services
- **Urban**: Soweto, Gauteng Province
- **Rural**: Acornhoek, Limpopo Province

Components of wellness service:
- TB: Screening and prophylaxis
- OI's: Treatment and prophylaxis
- STI's: Screening and treatment
- Family planning
- Cervical smears at entry and annually
- CD4 monitoring 6-monthly and RPR on first visit

Methods

- Women attending HIV wellness services were offered cervical smears
- CD4 count within 90 days of the smear being taken was linked to smear result
- Demographic data collected on women

Results

Cervical smears were performed in a group of 808 HIV-infected women whose median age was 31 years (IQR 27-36)

Cervical smear results and CD4

Lesions	Women with lesions % (N)	Median CD4 (IQR)	% with CD4 <200
HSIL	**10.6** (86)	153.5 (87 - 308)	60.5
LSIL	**23.4** (189)	198 (116 - 376)	50.8
ASCUS	**4.6** (37)	249 (160 - 510)	37.8
Normal	**61.4** (496)	297 (165 - 525)	30.7

Risk factors for High Grade Lesions

Parameter	Univariate Odds Ratio (95% CI)	Multivariate Odds Ratio (95% CI) N=795
CD4/10	0.97 (0.96 - 0.99)	0.97 (0.96 - 0.98)
Age (years)	1.0 (0.97 - 1.03)	Not Significant
Site (Rural vs Urban)	0.5 (0.15 - 1. 7)	Not Significant
Smoked (Yes vs No)	1.1 (0.5 - 2.02)	Not Significant
STI's	1.20 (0.73 - 1.96)	Not Significant

Conclusions

Prevalence of HSIL is approximately 5 times higher in these HIV-infected women than previously reported in South African women of unknown HIV status.

In this group of rural and urban women:
- Decreasing CD4 count is a risk factor for HSIL in HIV-infected women.
- HSILs occurred in young women and increasing age was not a risk factor for HSIL in HIV-infected women.

Recommendations

Long term follow up required to determine
- Outcome of HSIL in HIV-infected women
- Impact of HAART on progression of premalignant lesions
- Costing implications of diagnosing and treating cervical lesions in HIV-infected women.

These results suggest:
- Cervical screening should be considered for all HIV-infected women but possibly initiating screening at a younger age than currently recommended.

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