

Behavioural Predictors of Incidence and Clearance of Anal High-Grade Squamous Intraepithelial Lesions: Three-Year Follow up Results from SPANC Study

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Background & Methods



- **SPANC study—natural history study of anal HPV infection in GBM (617 enrolled)**
 - ❖ 5 study visits over 3 years
 - ❖ Detailed baseline questionnaire and follow-up questionnaires
 - ❖ Anal HPV testing, cyto/histo assessments at every study visit
- **Demographic and behavioural variables**
 - ❖ Age, cigarette smoking history, HIV status
 - ❖ Lifetime: number of male and female partners, age at first anal sex, sexual position preference, number of receptive anal sex partners (+/- condoms)
 - ❖ Recent (in past 6 months): number of male partners, number of receptive anal sex partners (+/- condoms)
- HSIL prevalence – 47% in HIV positive and 32% in HIV-negative
- Overall HSIL incidence 11.2 per 100 PY (95% CI 9.4-13.4)
- Overall HSIL clearance 22.1 per 100 PY (95% CI 18.8-25.9)

Results



	n	Person-years	INCIDENCE (per 100 PY)	HR 95% CI	P value	n	Person-years	CLEARANCE (per 100 PY)	HR 95% CI	P value
Age					0.009					0.017
35-44	37	233	15.9	1.00		45	150	30.0	1.00	
>44	86	860	10.0	0.60 (0.41-0.88)		108	543	19.9	0.65 (0.46-0.93)	
HIV status					0.047					NS
HIV-negative	76	759	10.0	1.00						
HIV-positive	47	335	14.0	1.45 (1.01-2.09)						
Recent no. of male partners					0.024					NS
0-1	32	376	8.5	1.00						
2-5	36	309	11.6	1.45(0.90-2.34)						
6-10	21	182	11.6	1.33 (0.77-2.32)						
>10	34	219	15.5	1.82 (1.12-2.95)						
Recent no. of RAI partners (+ condom)					0.001					NS
0	49	538	9.1	1.00						
1	19	208	9.2	1.05 (0.62-1.79)						
2-5	35	225	15.6	1.83 (1.18-2.83)						
>5	20	115	17.3	1.98 (1.17-3.33)						
Recent no. of RAI partners (no condom)					<0.001					NS
0	44	554	7.9	1.00						
1	40	327	12.2	1.53 (1.00-2.35)						
>1	39	204	19.1	2.37 (1.54-3.66)						

Conclusions



- Incident anal HSIL associated with
 - ❖ younger age
 - ❖ HIV positive
 - ❖ recent sexual exposures
 - ❖ NOT with lifetime sexual exposure
- Clearance of anal HSIL only associated with younger age
 - ❖ not associated with any behavioural factors
 - ❖ Related to high risk anal HPV
- Implications
 - ❖ Incident HSIL may represent acute disease after HPV exposure, in which case it may be more likely to resolve spontaneously
 - ❖ Aim to prevent anal cancer by preventing infection - HPV vaccination