

High prevalence of anorectal HPV infection and its associated factors among MSM in Japan

DAISUKE MIZUSHIMA, DAISUKE SHIOJIRI, MISAO TAKANO, HARUKA UEMURA, YASUAKI YANAGAWA, TAKAHIRO AOKI, KOJI WATANABE AND SHINICHI OKA

AIDS CLINICAL CENTER, NATIONAL CENTER FOR GLOBAL HEALTH AND MEDICINE, TOKYO, JAPAN

Disclosures:

- No conflict of interest.

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BACKGROUND/AIMS & METHODS:

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- ❖ Anorectal human papilloma virus (HPV) infection is an important cause of anorectal cancer, especially in HIV-infected men who have sex with men (MSM). However, little data is available on HPV infection among MSM in Japan.
- ❖ Thus, we evaluated prevalence of anorectal HPV infection and anorectal cytology among MSM in National Center for Global Health and Medicine (NCGM), in Tokyo.
- ❖ We carried a cross-sectional study of two cohorts in NCGM. Non HIV-infected MSM with 16 years and above from the Sexual Health Clinic (SHC) in NCGM, and HIV-infected MSM with 20 year and above from AIDS Clinical Centre (ACC) in NCGM.
- ❖ Anorectal high risk (HR) HPV infection was evaluated using invader PCR method and abnormality of anorectal cytology was evaluated by anal pap smear.
- ❖ The logistic regression model was utilized to determine the associated factors with Low-grade squamous intraepithelial lesion or High-grade squamous intraepithelial lesion.

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RESULTS:

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Table1. Basic characteristics

		HIV+ MSM (n=128)	HIV- MSM (n=245)	All (n=373)	P value
Age (y.o)		Mean 46.9 (SD 11.5)	Mean 35.5 (SD 10.2)	Mean 39.3 (SD 11.9)	P<0.001
LSIL or HSIL		38 (29.7%)	38 (15.5%)	76 (20.4%)	P=0.001
Rectal HR-HPV infection		97 (75.8%)	100 (40.8%)	197(52.8%)	P<0.001
HR-HPV infected MSM with and without HIV (n=197)					
LSIL or HSIL		37 (38.1%)	30 (30%)	67 (34.0%)	P=0.228
Multiple HPV infection		59 (60.8%)	35 (35%)	94 (47.7%)	P<0.001
Geno- type of HPV	16	39 (40.2%)	23 (23%)	62 (31.5%)	P=0.009
	18	11 (11.3%)	8 (8%)	19 (9.6%)	P=0.427
	others	81 (83.5%)	91 (91%)	172(87.3%)	P=0.214

Table2. Factors associated with LSIL or HSIL among MSM

	Univariate analysis			Multivariate analysis		
	OR	CI	P value	OR	CI	P value
Age per 1 year increase	1.004	0.983- 1.025	P=0.743			
Rectal HPV infection	9.563	4.597- 19.896	P<0.001	8.781	4.140- 18.621	P<0.001
HIV infection	2.300	1.377- 3.843	P=0.001	1.319	0.757- 2.299	P=0.329

Table3. Factors associated with L or HSIL among MSM with HPV

	Univariate analysis			Multivariate analysis		
	OR	CI	P value	OR	CI	P value
Age per 1 year increase	0.994	0.969- 1.019	P=0.618			
Multiple HPV infection	2.775	1.506- 5.113	P=0.001	1.960	1.017- 3.778	P=0.044
HPV 16	4.645	2.645- 8.849	P<0.001	3.824	1.955- 7.478	P<0.001
HPV 18	2.359	0.909- 6.123	P=0.078			
HIV infection	1.439	0.796- 2.602	P=0.229			

8

CONCLUSIONS/IMPLICATIONS:

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- The prevalences of anorectal HPV infection, LSIL and HSIL were high especially among HIV-infected MSM in Japan.
- Anorectal HPV infection was associated with LSIL or HSIL among MSM.
- Multiple HPV infection and HPV 16 infection were associated with LSIL or HSIL among MSM with anorectal HPV infection.
- Anorectal HPV infection, especially HPV 16 and multiple HPV infection were confirmed as associate factors with LSIL or HSIL in Japan.
- For early detection and prevention of anal cancer, longitudinal cohort studies are required for further evaluation.