

Prevalence and risk factors of human papillomavirus infection among men who have sex with men in Taiwan: results from a community sample

Carol Strong¹, Huachun Zou^{2,3}, Ya-Lun Liang¹, Wen-Chien Ko^{5,6}, Nai-Ying Ko^{4,5}

1. Department of Public Health, National Cheng Kung University, Tainan, Taiwan, 701
2. Kirby Institute, University of New South Wales, Sydney, Australia, 2052
3. Guangdong Provincial Center for Skin Diseases and STI Control, Guangzhou, China
4. Department of Nursing, National Cheng Kung University, Tainan, Taiwan, 701
5. Department of Internal Medicine, National Cheng Kung University, Tainan, Taiwan, 701
6. College of Medicine, National Cheng Kung University, Tainan, Taiwan, 701

Background:

Men who have sex with men (MSM) are at high risk for anogenital human papillomavirus (HPV) infection. Thus far in Taiwan, there is only data for targeted populations: 74.2% of HIV patients have HPV infection. There is an urgent need to assess the prevalence of HPV infection among MSM from a community sample in Taiwan.

Methods:

A total of 254 MSM, 20 years of age and older will be drawn from the community; currently 108 MSM were recruited from community health centers, saunas and advertisement on the internet. MSM received HPV screening, including anal and penile swabs, and a survey assessing sociodemographic, behavioral and sexually transmitted infection (STIs) related factors. HPV DNA testing and genotyping were performed by polymerase chain reaction. Bivariate analysis was conducted to identify behavioral risk factors associated with HPV infection.

Results:

The screening results showed that 22.1% were tested positive at the anal site, while only 5 persons (3.6%) were tested positive at the penile site. The most common HPV subtype for anal site is type 6 (n=12), followed by type 44 (n=5), types 52, 68, 42 (n=4), and types 16, 33, 45, 59 (n=3 for each subtype). Out of the 31 persons that tested positive on the anal site, 9% were found with only one subtype, 11% with 2-3 subtypes, and 2% with 4-5 subtypes. Three persons tested positive on both penile and anal sites. HPV infection at the anal site was associated with having more receptive anal sex partners in the past year ($p<0.01$) and having other STIs with marginal significance.

Conclusion:

HPV infection was much more common on the anus than that on the penis in the community sample of MSM. The most common type in our sample was HPV 6, a low-risk type that exists in most genital warts.