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PREVALENCE AND RISK FACTORS FOR HIGH-GRADE ANAL INTRAEPITHELIAL NEOPLASIA IN A COMMUNITY BASED COHORT OF HOMOSEXUAL MEN

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Introduction:

The incidence of human papillomavirus (HPV)-associated anal cancer is increasing in homosexual men. Screening for the presumed cancer precursor, high-grade anal intraepithelial neoplasia (HGAIN) in a manner analogous to cervical cancer screening has been proposed. This has been challenged because the natural history of HGAIN is not well understood.

Methods:

The Study for the Prevention of Anal Cancer (SPANC) is a community-recruited prospective study investigating the natural history of anal HPV infection and associated lesions in homosexual men aged ≥ 35 years. Data from the baseline visit was analyzed to assess the prevalence of histologically confirmed HGAIN, associated biological and behavioural risk factors.

Results:

By April 2012, 218 participants (median age of 49 years; 31% HIV-positive) had enrolled. Overall 58% of men had HPV-related lesions. One-third (33%) of men (28% of the HIV-negative and 43% of the HIV-positive) had HGAIN. AIN2 and AIN3 were diagnosed in 12% and 20% of men respectively. HIV-positive men were more likely to have AIN3 ($p=0.026$) than HIV-negative men. Detection of HPV16 was associated with AIN3 ($p=0.008$) but not AIN2 ($p=0.838$). HPV18 detection was associated with AIN2 ($p=0.001$) but not AIN3 ($p=0.432$). These associations were observed regardless of HIV status. No other HR-HPV types were associated with AIN2 or AIN3. Presence of any abnormalities was associated with a lifetime preference for the receptive (vs insertive) role in anal sex ($p=0.037$) and a history of genital and anal warts ($p=0.025$ and $p<0.001$, respectively). There were no associations with age, past/current smoking status or recent penile-anal sexual partners or condom use.

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Conclusion:

The prevalence of HGAIN in homosexual men was high, particularly in the HIV-positive. The strong relationship of AIN3 with HPV16, and of AIN2 with HPV18, raises the possibility that HPV type may be associated with histological grade and possible risk of progression to anal cancer.

Disclosure of Interest Statement:

AEG has received honoraria and research funding from CSL Biotherapies, honoraria and travel funding from Merck, and sits on the Australian advisory board for the Gardasil HPV vaccine. CKF has received honoraria, travel funding and research funding from CSL and Merck, sits on the Australian advisory board for the Gardasil HPV vaccine, and owns shares in CSL Biotherapies. SMG have received advisory board fees and grant support from CSL and GlaxoSmithKline, and lecture fees from Merck, GlaxoSmithKline and Sanofi Pasteur; in addition, has received funding through her institution to conduct HPV vaccine studies for MSD and GlaxoSmithKline and is a member of the Merck Global Advisory Board as well as the Merck Scientific Advisory Committee for HPV. RJH has received support from CSL Biotherapies and MSD. All other authors declare that they have no conflicts of interest.