

P10.21 A STUDY ON THE USE OF IMIQUIMOD FOR THE TREATMENT OF GENITAL MOLLUSCUM CONTAGIOSUM AND GENITAL WARTS IN FEMALE PATIENTS

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Introduction The clinical effect of imiquimod stems from cytokine-induced activation of the immune system. A randomised study was conducted to study the efficacy and safety of daily applications of 5% imiquimod cream in female patients with external genital warts and MC.

Methods Patients were randomised to receive daily applications of 5% imiquimod cream for a maximum of 16 weeks. Before bedtime patients rubbed the study cream into clean, dry, lesional skin until it disappeared and washed the area with soap and water 8 ± 2 h after application. To investigate wart and MC recurrence, patients who had complete clearance of their baseline lesions at any time during the treatment period stopped treatment and entered a 12-week treatment free follow-up period. Patients were evaluated weekly for the first 4 weeks and every 2 weeks thereafter for the remainder of the 16-week treatment period as well as during the 12-week follow-up period.

Results The clearance rate of lesions was 75% in genital MC patients and 50% in patients with genital warts. Erythema was the commonest adverse reaction seen 24% patients with the use of 5% imiquimod. Other side effects were excoriation seen in 16% patients, erosions in 10% patients, excoriation in 6% patients and pain was seen in 4% patients.

Conclusions Nonspecific inflammation and dermatitis can occur during use of imiquimod for genital warts and molluscum. Fortunately, after completion of the therapy, the skin often heals with barely any scarring.

Disclosure of interest Nil.

P10.22 ENGINEERING HUMAN RHINOVIRUS SEROTYPE-A1 AS A VACCINE VECTOR

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Introduction Vaccination is the optimal long-term solution to the human immuno-deficiency virus (HIV) pandemic. A majority of new HIV infections result from mucosal transmission, highlighting the need for novel vaccines that primarily generate mucosal immunity. Like HIV, human rhinovirus serotype-A1 (HRV-A1, the common cold virus) is primarily transmitted via mucosal surfaces. This makes HRV-A1 a potential vector for mucosally targeted vaccines to generate robust protection against HIV at the vaginal and other distant mucosal surfaces, and systemically.

Methods Using recombinant technology, we inserted discrete overlapping fragments of HIV gag and full-length tat into the junction between genes that encode HRV-A1 structural and non-structural proteins to generate recombinant HRV-A1s (rHRV-A1s) encoding HIV Gag and Tat proteins.

Results Transfection of H1-HeLa cells with rHRV-A1s transcripts yielded infectious and replication-competent rHRV-A1s with similar growth characteristics as wildtype HRV-A1. We also confirmed that cells infected with rHRV-A1s stably expressed Gag

and Tat (beyond 5 passages), of the correct sizes and mainly localised in the cytoplasm as revealed by western blot assay, reverse-transcription polymerase chain reaction and immunofluorescence. These results have been recently accepted for publication in *Virus Research Journal* (reference number: VIRUS96578, April 2015).

Conclusion To the best of our knowledge, this is the first time replication-competent and stable HRV-A1 vectors have been generated. The individual rHRV-A1gag/tat generated in this study have been mixed into a cocktail vaccine and administered intranasally to female Balb/C mice to evaluate its immunogenicity (animal experiments currently on-going). The protective efficacy of the resultant HIV-Gag-specific cell-mediated and Tat humoral responses will be documented in mice challenged intravaginally with chimeric rodent ecotropic murine leukaemia virus (EcoHIV). EcoHIV was developed by replacing the coding region of glycoprotein-120 (gp-120) of HIV strain NL4-3 with gp80 of EcoHIV to ensure that the chimeric virus infected murine cells only.

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P11 - Sexual behaviour and STI in men who have sex with men and transgender people

P11.01 SAME-SEX BEHAVIOUR AND EXPERIENCE MEASURED ON MULTIPLE OCCASIONS IN A BIRTH COHORT REVEALS HIGHER LIFETIME PREVALENCE THAN WOULD BE FOUND IN A CROSS-SECTIONAL STUDY

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Background Understanding sexual – including same-sex – behaviour is critical for appropriate policies to promote sexual health. While most information on current and past same-sex behaviour (SSB) is obtained from cross-sectional studies, the validity of information from these is not known. We have explored this in a cohort study in which questions on SSB were asked on multiple occasions over a prolonged age range.

Methods In the Dunedin Multidisciplinary Health and Development Study computer-presented questions on ever (and in the past year) having a same-sex partner (SSP), male anal intercourse (for men), and a same-sex experience (SSE) (“any contact you felt was sexual”), were asked of men on four occasions between ages 21–38, and of women on three occasions between 26–38. We have compared reports of lifetime SSP and SSE at age 38, with the summation of reports on all occasions.

Results Among men, at age 38, 12.4% reported ever a SSP, 5.2% ever male anal intercourse, and 14.9% ever a SSE. Based on responses from all the assessments, the respective proportions reporting these behaviours were 16.9%, 6.5% and 21.2%,