Poster presentations

Poster numbers marked with * will also be presented in an Oral Selected Poster Discussion.

P.01 - Basic Sciences Track

P1.001 HIGHCD45RO+EXPRESSION ON CD4 T CELLS IN LATE STAGE OF HIV INFECTION IN INDONESIAN POPULATION: A HOSPITAL-BASED STUDY

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Background Human Immunodeficiency virus (HIV) infection incidence is increasing in Indonesia.CD45RO+ cells are hyper-responsive cells that mediate immunological memory and HIV tends to infect RO+ memory subset of CD4 T cells. CD4+CD45RO+ T cells are major latent virus reservoir in HIV infection. However, up to now, there is no report of this reservoir cells in Indonesian HIV patients at various disease stages.

Theaim of this study isto know the relationship between the CD4+CD45RO+ T cells with clinical HIV stage in a hospital-based study.

Method This observational cross-sectional study was conducted in 48 HIV patients (35 males; 13 females) with various stages of diseases in HIV clinics of Sardjito Hospital, Yogyakarta, Indonesia. The clinical HIV stages of infections weredetermined while the CD4 counts and CD45RO expressions were detected from peripheral blood cells using flow cytometer. The differences of CD4+CD45RO+ T cells percentages among patient clinical stages and itscorrelations with CD4 counts were analysed using ANOVA and Pearson Correlation tests.

Result Clinically the most dominant stage was stage 3 (n = 15; 31.3%). The Late stage HIV infection (stage 3 and 4) has significantly higher CD4+CD45RO+ T cells percentages than stage 1 and 2 ($p = 0.006$). The CD4+CD45RO+ cells percentages positivelycorrelatedwith clinical HIVstage ($r = 0.46$; $p < 0.05$) but negatively correlated with CD4 cells absolute count ($r = –0.55$; $p = 0.001$)

Conclusion T cells expressing CD4+RO+were higher in late stage of HIV infection and negatively correlated with CD4 T cells absolute count.

P1.002 DEVELOPMENT AND PERSISTENCE OF ANTI-CHLAMYDIAL ANTIBODIES IN WOMEN WITH INCIDENT *CHLAMYDIA TRACHOMATIS* INFECTIONS IN UGANDA AND ZIMBABWE

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Background *Chlamydia trachomatis* (Ct) IgG antibodies could provide evidence of past chlamydial infection for epidemiologic studies. Antibodies to chlamydial heat shock protein 60 (cHSP60) have been associated with complicated infection and infertility. Few studies have prospectively evaluated antibody development and persistence.

Methods Chlamydia serology (Medac IgG MOMP and cHSP60) was performed on stored sera from a cohort of 18–35 yr-old women seeking reproductive health services in Uganda and Zimbabwe who participated in a prospective study of HIV infection; study visits (including Ct-PCR testing) occurred on average every 80 days for up to 28 months. We analysed data on 135 women with ≥ 1 incident Ct infections who were IgG-seronegative prior to and had at least one IgG test on or after the date the incident infection was detected ("day zero").

Results Sixty-six (49%) women seroconverted; of 54 tested on day zero, 46 (85%) were positive and 8 (15%) were negative and then positive when next tested (median 90 days). Of 12 seroconverters not tested on day zero, 11 (92%) were seropositive when next tested (median, 157 days). Nineteen (28%) of 69 non-seroconverters had no IgG testing beyond day zero and could not be assessed for delayed seroconversion. Of 52 seroconverters with subsequent testing, 27 (52%) remained persistently IgG-positive through the last test (median 248 days after seroconversion). Persistent IgG-positivity occurred in 61% (22/36) of those who were ever cHSP60-positive and 37% (6/16) of those who were not (NS), and in 56% (19/34) of those with only one Ct-PCR-positive visit and 50% (9/18) of those with more than one Ct-PCR-positive visit (NS).

Conclusions Anti-MOMP IgG antibodies developed in half of women with incident Ct infection and persisted in half of them. Although persistence was more common in those who were cHSP60-positive (suggesting complicated infection), the difference was not statistically significant.

P1.003 EXPERIMENTAL STUDY ON PATHOGENIC DIVERSITY OF DIFFERENT *CHLAMYDIA TRACHOMATIS* SEROVARS IN MOUSE GENITAL INFECTION

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Background *Chlamydia trachomatis* infection increases above gonorrhoea and syphilis, ranking first among the STDs. Molecular epidemiological researches have shown the predominant genotypes vary between regions, periods and population subgroups. However, serovars E, D and F are the most prevalent serovars. It is unclear whether the epidemiological characteristics were contributed to geography or pathogenicity. We explored the pathogenic diversity of different *C. trachomatis* serovars in mouse genital infection.

Methods One hundred of female BALB/C mice were divided into serovar E, F, H, J and K groups. The mice in study group treated by medroxyprogesterone acetate were inoculated 10^7 C. trachomatis into genital tract. *C. trachomatis* was detected by culture, direct immunofluorescence assay (DFA) and PCR in the cervicovaginal secretion. On the days 7 and 35 after inoculation, inflammation of the cervix, uterus and oviduct were examined by HE stain, and expressions of cHSP60 and CPAF in the uterus and fallopian tube were detected by ELISA.

Results The inflammatory of the cervical mucosa was more severe in serovar E group compared with J, K and H groups on day 7 post-inoculation. Accordingly, cHSP60 and CPAF expression increased significantly in E group compared with other experimental and control groups. On day 35 post-inoculation, the histo-pathological changes of the genital tract were obvious in J, K and H groups, characterised with uterine swelling, pyometra and effusion, fallopian expansion, hydrops, fibrosis and stenosis. cHSP60 and CPAF expression in H group was superior to that in other groups. Positive correlation between cHSP60 and CPAF expression was present on day 7 and 35 post-inoculation, respectively.

Conclusion There existed pathogenic diversity among different *C. trachomatis* servoars in mouse genital infection. The expression of inflammatory cytokines of cHSP60 and CPAF during Chlamydial infection might partially explain the pathogenic mechanism and the stage of the Chlamidal infection.

P1.004 SEROVAR D AND E OF SEROGROUP B INDUCE HIGHEST SEROLOGICAL RESPONSES IN UROGENITAL CHLAMYDIA TRACHOMATIS INFECTIONS

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