

countries, but it is not produced in China. The objective is to establish TMA technique and to prepare the reagent kit for HIVRNA detection and then to compare the sensitivity between TMA and RT-PCR.

Methods: TMA technique was established and was used in HIV quantity detection. The HIV standard sample (HIV transcript) and blood plasma with HIV antibody positive from different patients with HIV infection were detected respectively. The plasma HIVRNA of all the patients was detected by Roche COBAS Amplicor. Then the sensitivity was compared between TMA and Roche COBAS Amplicor, and also the associativity of the two NAT techniques was analyzed.

Results: HIVRNA detection sensitivity in HIV transcript was 1.0×10^1 copies/ml using TMA, but it was 5.0×10^2 copies/ml in the plasma of the patients with HIV infection. The consistency of negative control standard was 100%. The detective linear range was within 5.0×10^2 copies/ml to 1.0×10^8 copies/ml in the plasma of the patients with HIV infection. TMA had a good correlation with Roche COBAS Amplicor.

Conclusion: TMA technique is of good sensitivity, specificity and repetition in clinical HIVRNA quantity detection. It could be more sensitive than Roche COBAS Amplicor if the HIVRNA extract reagent kit is improved.

PP-168 Knowledge of HIV/AIDS, transmission and prevention methods in Bangladesh

M. Islam^{1*}. ¹Department of Population Sciences, University of Dhaka, Bangladesh

Background: This study aims to explore the levels and recent changes in the indicators of HIV-related knowledge, transmission and prevention methods reported by the women and men age 15–49.

Methods: Descriptive methods have been widely used with the application of most recent four rounds of nationally representative *Bangladesh Demographic and Health Surveys* (1997–2007) where HIV/AIDS related data are available.

Results: This study shows that knowledge of AIDS has increased considerably in the past 10 years; rising three-times higher for ever-married women compared with about nine in ten ever-married men have heard of AIDS the knowledge. The patterns of awareness of HIV/AIDS by background characteristics like age, marital status, residence, division, education, wealth quintile etc referred in the BDHSs are similar for both ever-married women and men, but the differentials are smaller for men. This study finds that currently about one-third of ever-married women are aware of each of the three major ways to reduce the risk of getting HIV: abstaining from sexual intercourse, limiting sex to one uninfected partner who has no other partners, and using condoms. Men have greater knowledge of HIV prevention methods than women. The knowledge of HIV prevention methods among both women and men is highest in urban areas. In case of knowledge of means of transmission of HIV even there are some significant differentials, the majority of women and men are concerned where the AIDS virus can be transmitted by using an unsterilized needle or syringe, and via blood transfusion.

Conclusion: The knowledge of HIV/AIDS, transmission and prevention of methods increased considerably in Bangladesh and it is always higher among both women–men younger, married, urban, who have completed secondary or higher education, and who belong to the highest wealth quintile.

PP-169 A simple method for exploring the mechanisms for anti-HIV compounds

Y.L. Li^{1*}, G.X. Gao², Y.T. Zheng³, W. Wang¹, L.X. Liu¹.
¹College of Life Sciences, Graduate University of Chinese Academic of Sciences, Beijing, China, ²Institute of Biophysics of Chinese Academic of Sciences, Beijing, China, ³Kunming Institute of Zoology of Chinese Academic of Sciences, Kunming, China

Objectives: A pseudovirus system was constructed to investigate the anti-HIV-1 specificity and mechanism of four previously identified anti-HIV compounds from Traditional Chinese Medicine.

Methods: Pseudovirus system was used to investigate the anti-HIV-1 mechanisms of the four natural compounds (SM-10, HGM-8, Flazin, and KY008). First, we analyzed the specificity of these compounds by infecting 293A cells with vesicular stomatitis virus (VSV) G pseudotyped HIV-1 or murine leukemia virus (MLV). Briefly, pseudovirus HIV-1-luc or MLV-luc infected 293A cells were incubated with or without the testing compound, 48 hours later, the luciferase activities were evaluated to identify the anti-virus activities. Second, by testing for the specific viral products of HIV-1 by real-time PCR, the targets of the compounds with special anti-HIV activity in early state of HIV life have been identified. To identify if the compounds could inhibit HIV lifecycle in late state, we transfected HIV-1-luc to 293A cells and then evaluated the luciferase activity.

Results: In our system, all four compounds showed anti-HIV activities. In particular, compound SM-10 could specifically inhibit HIV-1 replication without affecting the lifecycle of MLV. Further studies showed that SM-10 might block nuclear import of the HIV-1 preintegration complex (PIC) to inhibit HIV-1 replication.

Conclusion: We initially identified the anti-HIV targets of these natural compounds. Encouragingly, some of them showed novel action mechanisms to inhibit HIV replication, suggesting that these compounds might be used as new anti-HIV drugs in response to drug-resistant virus. Furthermore, the pseudovirus system we constructed in this study can be used as an assay platform to screening natural compounds for potential new anti-HIV therapeutics.

Financial support from Major National S&T Program China (2009ZX09501-029).

PP-170 HIV/AIDS/STI knowledge and behavior among Female Sex Workers in urban areas at Hyderabad, Pakistan

T.A. Bhatti^{1*}. ¹Health Services Academy, Islamabad, Pakistan

Background: The principal means of achieving these objectives were through a clinic based approach using peer outreach workers. A Cross Sectional (Rapid Assessment Survey) was done during December 2006–March 2007 at Hyderabad Brothel Area and main city. We surveyed 131 street-based and residential Female Sex Workers (FSWs).

Methods: We used the well-known methodology of appointing peer outreach workers, who identified the women who were actively involved in commercial sex and invited them to one of our temporary clinics.

Results: According to the survey results we found that most of the women actively involved in commercial sex are between 21 and 35 years old (78.1%). A surprising finding was that most of the FSWs belong to married families (89%). Regarding their education, the majority of FSWs were illiterate (79.3%); in the assessment of the FSWs' knowledge of AIDS/HIV and STI diseases, we found that 48.1% are aware of AIDS.

Conclusion: We found that Female Sex Workers still need to acquire correct knowledge of HIV/AIDS and STI spread