second was retinitis (27.5%); and rate of immune recovery uveitis was 2.2%. In HIV/AIDS patients with presence or absence of HIV-associated ocular diseases, prevalences of ocular manifestations were 56% and 46.5% (P > 0.05); those of tuberculosis were 30% and 30.9% (P > 0.05); mean CD4 counts were 87 cells/ul and 224 cells/ul (P < 0.05), respectively.

Conclusions: We found that retinopathy was most common HIV-associated ocular disease and the second was retinitis. Ocular manifestations were not diagnostic guidelines for HIV-associated ocular diseases, but CD4 count <100 cells/ul was associated with HIV-associated ocular diseases. Immune recovery uveitis was most predominant IRIS. This highlighted that routine ophthalmic screening were needed in HIV/AIDS patients with CD4 count <100 cells/ul.

PP-165 HIV infection having preponderance with parasitic influence of Plasmodium falciparum

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Objective: The Human Immunodeficiency Virus (HIV) is the most serious emerging infection and Plasmodium Falciparum malaria is one of the most Prevalent infectious diseases. The present study was an attempt towards prevalence of P. falciparum infection among HIV infected population of Tripura, India.

Methods: A prospective cohort study was conducted on 331 HIV patients (18-48 yrs) at G.B. Pant Hospital, Tripura, India from February 2008 to August 2009. Samples were screened by HIV antibodies and to determine CD4+ T cell count. Standardized questionnaire was designed to access social and clinical risk factors (informed consent was taken from each patient).

Results: Among 331, the total severe malaria patients were 31 (10%). The prevalence of HIV infection rate was 32%, 107 patients were non-immune to malaria. Risk of severe malaria was increased in HIV-infected patients with a CD4+ T cell count of <20×10^6 cells/L (P < 0.01). Non-immune HIV-infected patients were significantly more likely to have severe malaria [11 (34%) of 34 patients] than were non-immune non-HIV-infected patients [7 (10%) of 72 patients]. HIV serostatus did not affect risk of severe malaria in the group from an area with endemicity [4 (6%) of 72 HIV-infected patients had severe malaria and 4 (2%) of 149 non-HIV-infected patients had malaria; (P = 0.212)].

Conclusion: Risk of severe malaria is almost 3 times greater for the HIV-infected groups. HIV-infected patients may develop excessive or aberrant immune responses that lead to increased disease severity. Malaria infection leads to a decrease in CD4+ T cell count and to loss of immune responsiveness to malaria antigens. Therefore, HIV-infected non-immune adults are at increased risk of severe malaria as this risk is associated with a low CD4+ T cell count which is a common factor occurring between the two infections.

PP-166 Assessment of the knowledge of AIDS and HIV related sexual risk behavior among university students in Maiduguri

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Objective: The aim of the study was to assess the knowledge of AIDS, sexual practices and attitudes to HIV infection amongst university of Maiduguri students.

Method: A cross-sectional study. A total of 600 students were randomly selected based on stratified sampling method. With the students stratified according to their faculties. Data collection was by means of a structured, and self-administered questionnaire. The questionnaire had different sections requesting information on socio-demographic characteristics of the respondents a section on knowledge of transmission and prevention of AIDS, and a sexual behavior section.

Result: Three hundred and twenty (53.3%) were males and 280 (46.7%) were females. The mean age of the respondents was 22.45±3.08 years. On a scale of 1–12 the mean knowledge score of the respondents was 9.42±1.809. The knowledge score was similar between males and female respondents (p > 0.3). Knowledge about HIV was found to improve with age, and with length of stay in the university (p < 0.05). The practice of high risk behavior was common among the student with early age at sexual debut (mean 12.32±3.57) multiple sexual partners (mean 3.71) and lack of condom use. Over sixty percent of the respondents endorsed premarital sex, although more than 70% were ready to submit themselves for HIV screening before getting married.

Conclusion: The findings in the study indicate that students’ knowledge regarding HIV/AIDS was high and their attitudes towards HIV patients were quite positive. However, despite this high level of knowledge, there were still some misconceptions and many in this group have participated in behaviors that elevate their risk of exposure to HIV infection.
Knowledge of HIV/AIDS, transmission and prevention methods in Bangladesh

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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 and 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 BDHSSs 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.

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

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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 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.

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

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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