

## Observation of clinico-epidemiological and immune status of HIV/AIDS patients of Bangladesh

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**Background:** The management of HIV/AIDS in Bangladesh has been greatly transformed because of widespread availability of anti-retroviral Therapy (ART). The present study was undertaken to determine the clinico-epidemiological and immune monitoring among the Bangladeshi HIV/AIDS patients.

**Methods:** A cross-sectional study was carried out among 100 HIV/AIDS patients divided into Therapy naïve (Group I; n=33), Symptomatic Therapy naïve (Group II; n=33) and ART receivers >1 year (Group III; n=34) at the Department of Virology of Bangabandhu Sheikh Mujib Medical University (BSMMU) between January and December of 2011. Patients were monitored during their clinical follow-ups and CD4 & CD8 T-lymphocyte were analyzed using Flow cytometer (BD FACS count, USA).

**Results:** Of the 100 HIV/AIDS patients, 53 (53%) were males, 43 (43%) were females and 4 (4%) were trans-genders (TGs). The age of the study population ranged from 19 to 60 years (mean±SD; 33.53±9.07 years) with predominant age group between 30-40 years. The most frequent (84%) mode of transmission was heterosexual route. 76% of Group I and 91% of Group III were asymptomatic as per their clinical presentation. Among Group II, majority (58%) of individuals were presented with a combination of fever, diarrhea, weight loss and oral infection. As per WHO Clinical staging's, 81% of Group I were belong to Stage 1, whereas, in Group II, 42% and 36% were belong to Stage 3 and Stage 4 respectively. CD4 and CD8 T-lymphocyte were 591±217 and 1266±433 cells/μl respectively in Group I. Among Group II, CD4 T-lymphocyte were found reduced significantly to 155±127 cell/μl (P<0.05) while CD8 T-lymphocyte were 758±564 cell/μl (P<0.05) when compared with Group I. Among Group III, CD4 and CD8 T-lymphocyte count were 588±228 and 1104±417 cells/μl respectively with no significant difference with Group I suggesting the intake of ART has prominently bring back the immune function to near normal. All the symptomatic therapy naïves with CD4 T-lymphocyte count <350 cells/μl were subsequently counseled for ART program. Conclusion: Timely initiation of ART and clinical/immune follow-up ensures the success of the ongoing national scale up of the ART Program in Bangladesh.

### Biography

S M Rashed-ul Islam is a Virologist and Researcher, working at the Department of Virology of Bangabandhu Sheikh Mujib Medical University (BSMMU). He has completed his medical graduation in 2004 from Dhaka University and obtained his MPhil in Medical Virology in 2012 from Bangabandhu Sheikh Mujib Medical University (BSMMU). He is actively involved in the academic research and laboratory work. He has attended various workshops & seminars on virological and public health linked issues. Furthermore, he has also attended several conferences at both national and international levels. Besides virology, he has special interest in many Public Health focuses with his keen concern on emerging viral diseases (Nipah, Influenza), HIV/AIDS, Hepatitis B&C, universal health coverage, double burden diseases, etc. Until now, he has published 7 articles in peer reviewed national and international journals.

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