The renal function parameters of HIV-1 infected patients receiving highly active antiretroviral therapy at Federal Teaching Hospital Abakaliki, Ebonyi State

Moses Nnaemeka Alo
Federal University, Nigeria

The impact of HIV infection has become a global threat. This is more felt in rural areas with poor economic and social background. Highly active antiretroviral therapy (HAART) is anticipated to result in an increase in long-term survival, but may present with the development of associated complications. The effect of HAART on renal function is currently being explored. This study is aimed to ascertain the renal function parameters of HIV-1 infected patients receiving HAART in rural settings of Ebonyi State, Nigeria. Five hundred and eighty eight patients within the age range of 23–67 years comprising of 260 females and 328 males were enrolled for this study. This study was carried out at the Federal Teaching Hospital Abakaliki where the subjects were registered and placed on antiretroviral therapy and assessed for eighteen months with respect to renal function parameters such as creatinine and urea in correlation with CD4+ T-cell count. Demographic parameters (age, sex and social status) of the study subjects was collected using structured pretested questionnaire at their follow up date. The result revealed that 168 (28%) patients showed elevated serum urea and creatinine values above normal range as indicated by mean values of 73.4 mg/dl and 4.12 mg/dl from initial values of 51.32 mg/dl and 1.34 mg/dl at baseline respectively in the 18th month respectively the value are significant as p<0.05 and had a correlations coefficient of 0.975, 0.829 at 0.01 level with CD4+ T-cell. Subsequently, the CD4+ T-cell count increased from mean value of 89±13 cell/μl to 581±45 cell/μl at 18th months. The result shows that while the antiretroviral therapy may show good prognosis when considered on the basis of CD4+ T-cell turn over the impact on renal function is significantly deleterious. The treatment of HIV infected person with antiretroviral is receiving wider attention, the side effects of these drugs are continually manifesting among some recipients especially in rural poor settings. This may not be unconnected with concomitant administration of other drugs such as antimalarial. Hence therefore the need for close and proper monitoring of patients on antiretroviral therapy for adverse effect on renal function parameters and also to aid in evaluating drug combinations and implement dose modifications when necessary.

Biography

Moses Nnaemeka Alo studied Microbiology (BSc) from University of Lagos, Nigeria. He went further to study Medical Immunology in Masters Degree (MSc) from Ebonyi State University, Nigeria and also obtained a PhD in Medical Microbiology from Ebonyi State University, Nigeria. He also has a professional qualification in Medical Microbiology registrable with Medical Registration Council of Nigeria. His research areas include infectious diseases, public health, immunology and medical bacteriology and virology. He has been the Head of Department of Medical Laboratory Science from 2007-2011 at Ebonyi State University, Nigeria, member Medical Laboratory Science of Nigeria, and currently is the program coordinator Microbiology in Federal University Ndufu-Alike Ikwo, Nigeria. He is involved in various researches both at Undergraduate and Postgraduate level. He is currently a Research Coordinator in Microbiology and Epidemiology of Water Borne Infectious Disease in Federal University Ndufu-Alike Ikwo, Nigeria. He has over 50 publications to his credit.

mosesalo@yahoo.co.uk