

Prevalence of Diabetes Mellitus Among Human Immune Deficiency Virus-Positive Patients Under Anti-retroviral Attending in Rwanda, a Case Study of University Teaching Hospital of Butare

Authors : Venuste Kayinamura, V. Iyamuremye, A. Ngirabakunzi

Abstract : Anti-retroviral therapy (ART) for HIV patient can cause a deficiency in glucose metabolism by promoting insulin resistance, glucose intolerance, and diabetes, diabetes mellitus keep increasing among HIV-infected patients worldwide but there is limited data on levels of blood glucose and its relationship with antiretroviral drugs (ARVs) and HIV-infection worldwide, particularly in Rwanda. A convenient sampling strategy was used in this study and it involved 323 HIV patients (n=323). Patients who are HIV positive under ARVs were involved in this study. The patient's blood glucose was analyzed using an automated machine or glucometer (COBAS C 311). Data were analyzed using Microsoft Excel and SPSS V. 20.0 and presented in percentages. The highest diabetes mellitus prevalence was 93.33 % in people aged >40 years while the lowest diabetes mellitus prevalence was 6.67% in people aged between 21-and 40 years. The P-value was (0.021). Thus, there is a significant association between age and diabetes occurrence. The highest diabetes mellitus prevalence was 28.2% in patients under ART treatment for more than 10 years, 16.7% were <5years while 20% of patients were on ART treatment between 5-10 years. The P-value here is (0.03), thus the incidence of diabetes is associated with long-term ART use in HIV-infected patients. This study assessed the prevalence of diabetes among HIV-infected patients under ARVs attending the University Teaching Hospital of Butare (CHUB), it shows that the prevalence of diabetes is high in HIV-infected patients under ARTs. This study found no significant relationship between gender and diabetes mellitus growth. Therefore, regular assessment of diabetes mellitus especially among HIV-infected patients under ARVs is highly recommended to control other health issues caused by diabetes mellitus.

Keywords : anti-retroviral, diabetes mellitus, antiretroviral therapy, human immune deficiency virus

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