HIV AND HEPATITIS C CO-INFECTION IN A CAMEROONIAN POPULATION

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Abstract: The Human immunodeficiency virus (HIV) pandemic remains an issue of major public health concern, over three decades since its discovery. In Cameroon the reported high prevalence of other viral infections (hepatitis B and C viruses) further complicates outcomes in HIV-infected persons. Co-infection of HIV with hepatitis C virus (HCV) may result in more rapid disease progression than in HCV mono-infected patients. HCV accelerates the progress of HIV infection to AIDS. Furthermore, these co-infected patients appear to respond more slowly to treatment. Given these, and with the paucity of data on co-infections with HIV in Cameroon, this study was carried out to evaluate the magnitude of HIV/HCV co-infection. The study was undertaken in a border town of the South of Cameroon called Abang Minko’o. This is a highly commercialized area, located at about 1.5 km from the border between Cameroon and Gabon. It has an international market that attracts a diverse population of people from its bordering towns/cities of Cameroon, Gabon, Equatorial Guinea, Sao Tome and Principe, and Congo. Hence, Abang Minko’o is dotted with many motels at very cheap prices to accommodate its numerous traders during market days. Correspondingly, sexual promiscuity is high there, hence a suitable site for the study. Prior sensitization campaigns of the populations were carried out both within the community and the local Health Centre. Following informed consent, socio-demographic and clinical data was obtained from long-term residents of Abang Minko’o aged 12 years and above. Furthermore, 5 mls of venous blood was collected into tubes containing ethylene diamine tetra-acetate, and the plasma was used to screen for HIV and HCV. Parallel testing for HIV was done firstly using two rapid tests. All reactive and discordant samples were further tested using Murex HIV Ag/Ab Combo (DiaSorin; Saluggia, Italy). Samples reactive to this were considered definitively positive for HIV antibodies. All samples were also screened for anti-HCV antibodies using a rapid test. All positive and indeterminate samples were further tested for confirmation using the Architect anti-HCV qualitative assay (Abbott, Wiesbaden, Germany). Samples reactive to this were considered positive for HCV antibodies. All data was analyzed with Epi Info version 3.5.3. The Chi square ($X^2$) test; the Fisher’s exact test and Odds Ratio (OR) were used as required, for statistical analysis. P values <0.05 were considered statistically significant. Of 174 consenting participants included there were 93 (53.4%) males and females 81(46.6%); the mean age was 30.34 ± 13.26 years (range 12 -77 years). There were 12 HIV-positive samples (6.9%), and 11 samples positive for anti-HCV (6.3%, 95% CI = 2.9 – 10.3). The older age groups were more affected by HCV infection, with a male predominance. Co-infection of HCV and HIV was noted in 1.7% cases. Anti HCV antibodies were significantly higher in HIV-positive individuals, compared to the HIV-negative ones (25% and 4.9% respectively; R = 6.38; 95% CI = 1.44 – 28.22; p = 0.006). A few risk factors for these were identified including injection drugs. These findings emphasize the continuous need for education and preventive measures in highly vulnerable populations.

Keywords: HIV, Hepatitis C, co-infection, Abang Minko’o