

Co-Infection Burden of hepatitis C Virus and Human Immunodeficiency Virus among Injecting Heroin Users at the Kenyan Coast.

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Abstract

Background

Injection drug use is steadily rising in Kenya. We assessed the prevalence of both human immunodeficiency virus type 1 (HIV-1) and hepatitis C virus (HCV) infections among injecting heroin users (IHUs) at the Kenyan Coast.

Methods :A total of 186 IHUs (mean age, 33 years) from the Omari rehabilitation center program in Malindi were consented and screened for HIV-1 and HCV by serology and PCR and their CD4 T-cells enumerated by FACS.

Results

Prevalence of HIV-1 was 87.5%, that of HCV was 16.4%, co-infection was 17.9% and 18/152 (11.8%) were uninfected. Only 5.26% of the HIV-1 negative injectors were HCV positive. Co-infection was higher among injectors aged 30 to 40 years (20.7%) and among males (22.1%) than comparable groups. About 35% of the injectors were receiving antiretroviral treatment (ART). Co-infection was highest among injectors receiving D4T (75%) compared to those receiving AZT (21.6%) or TDF (10.5%) or those not on ART (10.5%). Mean CD4 T-cells were 404 (95% CI, 365 - 443) cells/mm³ overall, significantly lower for co-infected (mean, 146; 95% CI 114 – 179 cells/mm³) than HIV mono infected (mean, 437, 95% CI 386 – 487 cells/mm³, p<0.001) or uninfected (mean, 618, 95% CI 549 – 687 cells/mm³, p<0.001) injectors and lower for HIV mono-infected than uninfected injectors (p=0.002). By treatment arm, CD4 T-cells were lower for injectors receiving D4T (mean, 78; 95% CI, 0.4 – 156 cells/mm³) than TDF (mean 607, 95% CI, 196 – 1018 cells/mm³, p=0.005) or AZT (mean 474, 95% CI -377 – 571 cells/mm³, p=0.004)

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