World Academy of Science, Engineering and Technology
International Journal of Bioengineering and Life Sciences
Vol:17, No:10, 2023

Intervention To Prevent Infections And Reinfections With Intestinal Parasites In People Living With Human Immunodeficiency Virus In Some Parts Of Eastern Cape, South Africa

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Abstract : Introduction: Despite use of Anti-retroviral therapy to reduce the incidence of opportunistic infections among HIV/AIDS patients, rapid episodes of re-infection after deworming are still common occurrences because pharmaceutical intervention alone does not prevent reinfection. Unsafe water and inadequate personal hygiene and parasitic infections are widely expected to accelerate the progression of HIV infection. This is because the chronic immunosuppression of HIV infection encourages susceptibility to opportunistic (including parasitic) infections which is linked to CD4+ cell count of <200 cells/µl. Intestinal parasites such as G. intestinalis and Entamoeba spp are ubiquitous protozoa that remain infectious over a long time in an environment and show resistance to standard disinfection. To control re-infection, the social factors that underpin the prevention need to be controlled. This study aims at prevention of intestinal parasites in people living with HIV/AIDS by using a treatment, hygiene education and sanitation (THEdS) bundle approach. Methods: This study was conducted in four clinics (Ngangelizwe health centre, Tsolo gateway clinic, Idutywa health centre and Nqamakwe health centre) across the seven districts in Eastern cape, South Africa. The four clinics were divided in two: experimental and control, for the purpose of intervention. Data was collected from March 2019 to February 2020. Six hundred participants were screened for intestinal parasitic infections. Stool samples were collected and analysed twice: before (Pre-test infection screening) and after (Post-test re-infection) THEdS bundle intervention. The experimental clinics received full intervention package, which include therapeutic treatment, health education on personal hygiene and sanitation training, while the control clinics received only therapeutic treatment for those found with intestinal parasitic infections. Results: Baseline prevalence of Intestinal Parasites isolated shows 12 intestinal parasites with overall frequency of 65, with Ascaris lumbricoides having most frequency (44.6%). The intervention had a cure rate of 60%, with odd ratio of 1.42, which indicates that the intervention group is 1.42 times more likely of parasite clearing as compared to the control group. The relative risk ratio of 1.17 signifies that there is 1.17 times more likelihood to clear intestinal parasite if there no intervention. Discussion and conclusion: Infection with multiple parasites can cause health defects, especially among HIV/AIDS patients. Efficiency of some HIV vaccines in HIV/AIDS patients is affected because treatment of re-infection amplifies drug resistance, affects the efficacy of the front-line drugs, and still permits transmission. In South Africa, treatment of intestinal parasites is usually offered to clinic attending HIV/AIDS patients upon suspicion but not as a mandate for patients being initiated into Antiretroviral (ART) program. The effectiveness of THEdS bundle advocates for inclusiveness of mandatory screening for intestinal parasitic infections among attendees of HIV/Aids clinics on regular basis.

Keywords : cure rate,, HIV/AIDS patients, intestinal parasites, intervention studies, reinfection rate
Conference Title : ICAMMMDA 2023 : International Conference on Advanced Medical Microbiology and Microbial Diversity Analysis
Conference Location : New York, United States
Conference Dates : October 09-10, 2023