



## Intestinal Parasitic Infections and Associated Factors among People Living with HIV

Ali Lee\*

Department of Medical Laboratory Science, College of Medicine and Health Sciences, Wollo University, Dessie, Ethiopia

\*Corresponding Author: Ali Lee, Department of Medical Laboratory Science, College of Medicine and Health Sciences, Wollo University, Dessie, Ethiopia, E-mail: lee@gmail.com

Received date: 01 February, 2022, Manuscript No: HARJ-22- 62510;

Editor assigned date: 03 February, 2022, Pre QC No. HARJ-22- 62510 (PQ);

Reviewed date: 17 February, 2022, QC No. HARJ-22- 62510;

Revised date: 24 February, 2022, Manuscript No. HARJ-22- 62510 (R);

Published date: 03 March, 2022, DOI:10.4172/HARJ.1000106

### Description

Intestinal spongers and HIV/ AIDS infection come a major public health concern in Africa. The operation and care of HIV/ AIDS cases is being complicated by intestinal parasitic infections. Thus, this study aimed to determine the frequency and associated factors of intestinal parasitic infections among people living with HIV at Dessie Referral Hospital, North-east Ethiopia. This cross sectional study was conducted from March to May 2019. Methodical simple arbitrary slice fashion was used to retain study actors. Stool instance was collected and examined microscopically using wet mount, formal-ether attention fashion and modified Zeihl Neelsen styles. Socio-demographic characteristics and associated factors were collected using structured questionnaire. The recent CD4 cell count was attained from cases ART follow-up record. Data were analysed using SPSS interpretation 20 software. Bivariate and multivariate logistic regression was done to probe the association between independent and dependent variables.

#### Intestinal Spongers And Hiv

Of the aggregate of 223 study actors 120 (53.8) were ladies and 162 (72.6) were civic occupant. The overall frequency of intestinal spongers was 47 (21.1). Eleven different intestinal spongers species were detected. The dominant intestinal sponger species was *Entamoeba histolytica* 14 (6.3) followed by *Enterobius vermicularis*. Multivariate logistic regression analysis showed that individualities that had a habit of hand washing after potty were less likely to be infected with intestinal parasitic infection (AOR 0.15, 95 CI 0.05 – 0.412). On the other hand individualities who had CD4 cell count of < 200 cells/ ml<sup>3</sup> were 45.53 times more likely infected with intestinal spongers.

The frequency of intestinal sponger was advanced than former report from the same study area nearly a decade ago. There was statistical significant association between hand washing habit after potty, habit of eating raw vegetables and CD4 cell count lower than 200 cells/ml and intestinal parasitic infections. Health education program intruded in Dessie referral sanitarium should be continued to reduce the frequency of intestinal spongers. Application of water treatment, washing hand after potty and eating cooked or meetly

washed vegetables should also be promoted. Also, periodic laboratory coprolite instance examination and prompt treatment are necessary.

Intestinal parasitic infections are extensively distributed throughout the world and they're a major cause of morbidity and mortality. They're generally largely current in sub-Saharan Africa, where HIV/ AIDS cases are also concentrated. The infection of intestinal spongers and HIV/ AIDS has come a major public health concern in Africa. Mortal vulnerable insufficiency (HIV) infection suppresses mortal impunity and expose individualities to opportunistic infections is responsible for high mortality rate. Among the opportunistic infections, intestinal parasitic infections caused by helminths and protozoa are the most common infections in the world. Intestinal parasitic infections come severe when they appear in HIV/ AIDS cases. They play an important part in the progression of HIV infection to AIDS, by farther disturbing the vulnerable system. The common immunopathogenetic base for the injurious goods that parasitic conditions may involve in preferential activation of the T coadjutor type process. Therefore combating the HIV should involve control and forestalment of parasitic conditions.

The frequency of HIV/ AIDS and intestinal spongers in Ethiopia is high. In Ethiopia the public grown-up HIV frequency is 0.9 and an estimated people were living with HIV, and 30 were from the Amhara region in 2017. The prevalence rate of HIV in desire was advanced than other municipalities of Amhara region with 5.74 per 1000 population. The high circumstance of associated factors similar as low content of inadequate water force for drinking, low content of tone and environmental hygiene installations and impurity of food and drinking water that results from indecorous disposal of mortal excreta favour the high frequency of intestinal parasitic infections. In Ethiopia, intestinal parasitic infections are responsible for further than half a million periodic visits of the inpatient services of the health institutions. This report may be undervalued due to lack of applicable individual test styles in numerous of the health institutions. Intestinal spongers and HIV/AIDS are wide throughout the country. The operation and care of HIV/ AIDS cases is complicated by intestinal parasitic infections. So, detecting intestinal spongers and understanding the health complications they beget will help health workers to manage duly and treat HIV/ AIDS cases. As far as we know, there was only one study conducted 9 times ago among pre-ART and on ART HIV/ AIDS case in the study area. Thus, this study was aimed to modernize the information about the frequency and associated factors of intestinal parasitic infection among people living with HIV who are on ART follow up at desire referral hospital, desire city, North-East Ethiopia. Coprolite sample was examined microscopically using direct wet mount, Formal ether attention fashion and modified Ziehl Neelsen system for sponger discovery. Direct wet mount examination was performed using normal saline and Lugol's iodine at Dessie referral Sanitarium.

#### Intestinal Parasitic Infections

Also the remained coprolite sample was saved with 10 formalin for formal ether attention fashion and modified Zeihl Neelsen system procedures. For formal-ether attention fashion, an estimated 1 g (peasize) coprolite sample was mixed with 4 ml of 10 formol water. Fresh 4 ml of 10 v/v formol water was added and mixed by shaking. After the content settled 4 ml of diethyl ether was added and mixed for 1 min. Also it was incontinently centrifuged at 3000 Revolution Per Nanosecond (rpm) for 1 min. Eventually, the deposition was examined

under microscope. The remaining deposition was stained using Modified Ziehl Neelsen system for the discovery of intestinal coccidian spongers. Standard functional procedure (Bribe) was rigorously followed during bitsy examination of coprolite instance for intestinal spongers. Intestinal spongers and HIV/ AIDS areco-endemic in numerous regions of the world. In this study, maturity of the study actors (53.8) were ladies. This was in agreement with a report from Kano, Nigeria. The frequency of HIV/ AIDS may be fairly increased in women as open mate in heterosexual intercourse. In the present study maturity of the HIV/ AIDS cases were single (44.8). This could be one of the possible reasons for being exposed to HIV/ AIDS as a result of having multiple sexual mates.

This study revealed that the frequence of intestinal spongers among people living with HIV was 47 (21.1). The finding was advanced than former studies reported from Ethiopia (13.9), Nigeria (11.4) and Cameroon (14.64). On the other hand the frequency was lower than

reports from Cameroon (57.48) and Ethiopia. The lower or advanced frequency of intestinal spongers in this study compared to former studies might be due to variations in geographical area that affect the distribution of spongers, study period (seasonal variations), life style and culture of the society, mindfulness about the forestallment and control of intestinal spongers, differences in socio profitable status and the individual styles employed for sponger discovery.

The frequency of intestinal spongers was also advanced than the study conducted in Dessie Referral Hospital 9 times ago among HIV/ AIDS cases (17.6). The possible reasons might be due to the interruption of listed deworming program to people taking ART at the study point. The other most probable reason could be the interruption of health education programs that was given for HIV/ AIDS cases at Dessie Referral Hospital about the transmission, forestalment and control of intestinal spongers and other contagious conditions.