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Enteric opportunistic parasitic infections in HIV/AIDS patients presenting with diarrhea

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ABSTRACT

Enteric parasites are major cause of diarrhea in HIV patients. Incidence of enteric parasites in HIV patients presenting with diarrhea who attended ART center, KMC, KURNOOL were studied. The study was carried out from JAN 2014 to NOV 2014 at ART centre, KMC, KURNOOL among HIV patients presenting with diarrhea. Stool samples were collected and examined for enteric parasites by Microscopy and Special staining methods. Enteric parasites were found in about 37% and parasites involved are *Cryptosporidium parvum* (13%), *Entamoeba histolytica/dispar* (9%), *Isospora belli* (7%), *Microsporidia*(1%), *Cyclospora* (0.7%)[5]. Enteric parasitic infections were detected in 37% HIV patients presenting with diarrhea. Detection of aetiological pathogens not only help clinicians decide appropriate management, we can also reduce the incidence by educating HIV patients.

Keywords: ART centre, Diarrhea, HIV patients, Enteric parasites,

INTRODUCTION

Opportunistic Infections are most common cause of high morbidity and mortality among HIV/AIDS patients. Enteric parasites have been one of the most common cause of opportunistic infections. Infection with enteric pathogens are the leading cause of diarrhea in HIV infected individuals which is a most common symptom among them. *Cryptosporidium parvum* & *Isospora belli* are most common Opportunistic Enteric Parasites while *Cyclospora* & *Microsporidia* are also noted in few cases. Among non- opportunistic parasites[2], *Entamoeba histolytica/dispar* is most common. *Ascaris lumbricoides*, *Trichuris trichura*, *Giardia lamblia* *Ancylostoma duodenale* *Strongyloides* are some other parasites which cause diarrhea. In Immuno compromised patients, opportunistic enteric parasites play a major role in causing chronic diarrhea accompanied by weight loss, malnutrition & severe dehydration[.4]

OBJECTIVES:

To Study the incidence of enteric parasites causing diarrhea in HIV patients.

To Study the role of Patient Education in preventing chronic diarrhea.

MATERIALS AND METHODS

The study was carried out in the year 2014 from JANUARY to NOVEMBER at ART centre, KMC, KURNOOL among 1932 HIV patients with diarrhea. For evaluating the study subjects, detailed history was taken. Patients who are on antibiotics were excluded from the study.

STOOL EXAMINATION:

Standard Precautions were taken for collection of stool samples. Three consecutive Stool samples were taken from each patient. Macroscopic features are noted. Microscopic examination was done by Direct (both saline and iodine) & Formalin ether concentration methods. Smears of both Direct & Formalin ether concentrated specimens were examined by Modified acid fast staining for *Cryptosporidium parvum*, *Isospora belli* & *Cyclospora*. For detection of Ova, Larvae, Trophozoites, Cysts of enteric parasites, Lugol's Iodine was used. For detection of Microsporidia, Modified Trichrome stain was used.[1]

RESULTS AND DISCUSSION

Among 1932 patients, 1333 were males & 599 were females. The mean age of the male & Female patients was 35.1 ± 8.23 & 32.6 ± 9.52 yrs respectively. Among total patients enteric parasites were detected in 715 (37%) patients of which 418 (58.46%) were opportunistic and 297 (41.54%) were non-opportunistic. Among 715 patients, *Cryptosporidium* were diagnosed in 251 patients, *Isospora belli* in 135, *Microsporidium* in 19, *Cyclospora* in 13 patients were seen[2]. Among non-opportunistic *Entamoeba histolytica/dispar* was seen in 173 patients, *Ascaris lumbricoides* in 59, *Ancylostoma duodenale* in 38, *Hymenolepis nana* in 27. Overall, among opportunistic infections *Cryptosporidium parvum* (13%) is more common & in non-opportunistic infections *Entamoeba histolytica/dispar* was common. Thus, it was found that opportunistic infections were the leading cause of diarrhea in HIV/AIDS patients.

CONCLUSION

Enteric parasitic infections caused diarrhea in 37% of study subjects[3]. Hence, evaluation of HIV infected individuals with diarrhea for enteric parasites is very important and it will be very helpful in better management of patients. As all these parasitic infections are preventable by taking simple precautions like personal

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