

Intestinal Parasitosis Among the Elderly People in Northern India



Medical Science

KEYWORDS : Elderly people, intestinal parasites, northern area

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ABSTRACT

Introduction - This study was carried out among the elderly people (60+ years of age) from June 2016 to August 2016 in northern area to assess the prevalence of intestinal parasitosis in them.

Material and methods- Stool samples were collected from 200 elderly people. The samples were examined by formal ether sedimentation test.

Result- Out of 200 stool samples collected, 98 (49%) samples had one or more intestinal parasites. Of the 98 positive samples, 60 (61.3%) samples yielded single parasite, where as 38(38.7%) samples had multiple parasites .

Conclusion -There was equal infection rate with protozoa and helminths . *Trichuris trichiura* and *Entamoeba histolytica* were the commonest helminth and protozoa, respectively. The northern community, living in poor sanitary conditions with limited access to the health services, is one of the most infected populations in the world

INTRODUCTION-

Parasitic disease is a major public health problem in developing countries. WHO has estimated that *Ascaris lumbricoides*, hookworm and *Trichuris trichiura* infect 1.4 billion, 1.3 billion and 1.0 billion people worldwide, respectively.¹ The protozoan parasites although being less common are associated with the highest number of mortalities.²

Intestinal parasitic infections which are caused either by protozoa or helminths or both are among the most widespread of human infections. Most of the World's population is infected with intestinal parasites which may play significant role in morbidity [3]. It is estimated that nearly 3.5 billion people are affected, and 450 million are ill due to parasite infections, the majority being affected are children [4].

Prevalence of intestinal helminths and other intestinal parasites have been studied in different countries of the tropics and subtropics including Ethiopia [5,6]. In Ethiopia, many surveys carried out on intestinal parasites have shown that helminthic infections represent a major public health concern [7,8].

These infections are associated with poor sanitary habits, lack of access to safe water and improper hygiene, thereby occurring wherever there is poverty (9). The degree of each factor and the prevalence of infections vary from one region to another (10). Developing countries are the most affected due to the fact that the majority of the population is living in poverty and water and sanitation facilities are either poor or non-existent. Mahfouz et al. (1997) acknowledges that climatic conditions, poor sanitation, unsafe drinking water and lack of toilet facilities are the main contributors to the high prevalence of intestinal parasites in tropical and subtropical countries(11).

MATERIALS AND METHODS -

Study population and sample collection:

The 200 stool samples were collected from the people above 60 years from out patients.

Processing of the samples:

The samples were examined by formal ether sedimentation. The identification of the cysts, trophozoites, eggs, larvae and oocysts of the parasites was done based on their basic morphology under microscope

Result -

Out of 200 stool samples collected, 98 (49%) samples had one or more intestinal parasites. Of the 98 positive samples, 60 (61.3%) samples yielded single parasite, where as 38(38.7%) samples had multiple parasites .

Out of 200 elderly people studied, 61.3% had monoparasitosis and 38.7% had multiparasitosis. No difference in multiparasitic and monoparasitic infection rates in two genders was observed .

Type of infection	Total	Percentage
Single parasite	60	61.3
Protozoa	30	30.6
Helminth	30	30.6
Multiple parasite	38	38.7
Protozoans	7	7.1
Helminthes	11	11.2
Protozoans + Helminthes	20	20.4
Total	98	100.0

Discussion -

In the present study, about 98 of the elderly people were found to be infected with one or more intestinal parasites. This finding was much higher than that observed in Brazil (60+ people),¹² Malaysia (50+ people)⁷ and Iran (69+ people).¹³ In contrast, studies done among 50+ people in China¹⁴ and Bangladesh¹⁵ have shown higher prevalence (51.3% in China and 50% in Bangladesh). These findings may correlate with the prevalence of parasitosis among the general population of the particular geographical area.

The ratio of monoparasitism and multiparasitism among total infected people (7:3) was consistent with the rate among general population in Brazil⁵ and Lao PDR.¹⁸ In the contrary, the multiparasitism rate was higher in Fujian Province (China) in 1998 and lower in the same place in 1999.⁸ In Nepal, the rate of multiparasitism varies greatly in study populations and geographical areas.^{16,17} Very low rate of multiparasitism (<5.0%) has been reported in one of the hilly regions in eastern Nepal.¹⁷

CONCLUSION-

There was equal infection rate with protozoa and helminths. *Trichuris trichiura* and *Entamoeba histolytica* were the commonest helminth and protozoa, respectively. The northern community, living in poor sanitary conditions with limited access to the health services, is one of the most infected populations in the world.

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