Intestinal Parasitic Infestation Among Children in Karachi

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Mansoor Ahmed,Mohammad Hadi Zaidi,Serajuddaula Syed,Zain UI Salikeen,Shujauddin (Ziauddin Medical University Hospital, KDLB Campus, Kernari, Karachi.)

Intestinal parasitic infestation is widely prevalent in Pakistan. Its distribution varies according to the local habits, environmental conditions and customs in the rural and urban population of the country[1]. Not only in Pakistan, parasitic diseases persist asagreat public healthproblem globally. it has been estimated that well over 3000 million people worldwide are carrying the burden of worms[2]. The parasitic infestation leads to malnutrition, iron deficiency anaemia, protein depletion, malabsorption, vitamin deficiencies and affects growth and learning abilities in children[3] and even causes surgical problems like intestinal obstruction[4]. In Pakistan, epidemiological surveys have been carried out at various places like Karachi, Lahore, Rawalpindi/Islamabad, Hazam and Bahawalpur[1,2,5-9]. The present study was conducted to determine the frequency and pattern of intestinal parasitic infestation in children at Kemari, Karachi.

Subjects, Methods and Results

This prospective study was carried out at the out-patient department and in-patients of children ward, Dr. Ziauddin Medical University Hospital (KDLB Campus), Keamari, Karachi from June to December, 1996. All patients upto the age of 15 years coming to or admitted with complaints of diarrhoea, abdominal pain, nausea, vomiting, indigestion, malabsorption, steatorrhoea, malnutrition and pica were included in the study. Fresh stool samples were collected and examined using nonnal saline and iodine preparations. The stool samples which failed to reveal the presence of intestinal parasites in saline/iodine preparations were then subjected to formal ether concentration technique[10].
Out of the total 429 stool specimens examined, 138 (32.2%) were +ve for pmtozoal and helminthic infections. Only 3% of the total patients were <1 yearofage while 61% of the patients were between 1-10 years of age. There were 64 (46.4%) males as compared to 74 (53.6%) females. Commonest intestinal parasite was Ascaris lumbncoides 42 (30%) followed by Giardia lamblia 34 (25%). Entamoeba histolytica 16(12%)andHymenolepisnana 14 (10%) (Table).

Table. Parasites isolated from 138 stool positive cases.

Parasites	No.	%
Ascaris lumbricoides	42	30
Giardia lamblia	34	25
Entamoeba histolytica	16	12
Hymenolepis nana	14	10
Ankylostoma duodenale	8	6
Enterobius vermicularis	8	6
Trichuris trichiura	6	4
Blastocystis hominis	4	3
Taenia saginata	3	2
Trichomonas hominis	3	2

Comments

Intestinal parasitic infestation is a global health problem. Infact it is of much concern for the third world countries[3-13], It may be due to overcrowding, water contamination, improper sanitation and migration of people to cities with inadequate basic necessary facilities which are not kept with the rising population.

In this study, we observed 32.2% ofparasitosis which is comparable to other studies conducted in our country[1,2,5-8]. Age specific incidence was lowest below one year, gradually increasing after infancy but declining after 12 years of age. Similar pattern has been observed in some other studies[2,5,14]. The commonest intestinal parasitic infestation in the present study was of Ascaris lumbricoides (30%) which is higher compared to other studies[2,7,15]. Giardia lamblia was the second commonest parasite (25%) observed in this and some of the other studies[2,15] although in one of the study its prevalence was reported to be 43.7%'. The prevalence of Hymenolepis nana and Anky lostome duodenale is low as compared to other studies[2,15]. . According to WHO, Ascaris lumbricoides, Ankylostoma duodenale and Trichuris trichura rank among the commonest infections in the world's. WHO recommends that in areas where the prevalence of mild to moderate malnutrition is greaterthan 25% andwhere parasites are known to be wide spread, high priority should be given to dewonning programs for treatment of parasites[2,11,12-15].

It is thus recommended that measures like public awareness of the hazards of parasitic diseases, personal hygiene, population based chemotherapy against parasites, provision of safe drinking water supply and sanitation facility and easy availability of all anti- parasitic dmgs including niclosamide are

important for the prevention and treatment of parasitic diseases.

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