

Prevalence of Intestinal Worm Infestations among Under Five Children

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Abstract: Worm Infestation is a major public health problem in children of developing countries because of poor socio economic conditions and lack of good hygienic living. Intestinal worm infestations contribute significantly to global burden of diseases in children, especially in the tropical and sub – tropical regions. The aim of the present study was to estimate prevalence of Intestinal worm infestation among the under five children. A non – experimental research approach and descriptive research design was used for a sample of 100 under five children in selected village of Golawali Kulian, Amritsar, Punjab. Simple random sampling technique was used to collect samples. Data was collected in two sections; one was sample characteristics and second was Microscopic stool examinations. The result of the study revealed that out of 100 children examined almost 73(73.0%) under five children suffered from various Intestinal e.g. Thread worm 31.0%, Round worm (30.0%), Whipworm (7.0%) and Hook worm (5%). According to the association of prevalence of Intestinal worm Infestation selected demographic variable of worm infestation. The highest prevalence 59% was noted in the age group of 2 – 4 years.

Keywords: Intestinal worm Infestation, Prevalence under five children, Information booklet

1. Introduction

Children are one of the most valuable groups of Society. Economic, Social, Political and Environmental changes in Society have maximum impact on children. The word parasite comes from Greek word ‘Prasitos’, which means one that stands at the meal of another. A parasite lives in a close relationship with the other organisms, its host and cause it harm. Man is the definite host for many parasites.

Intestinal helminthes are a worldwide problem especially among children of developing countries. It is estimated that more than 25% of the world population are infected. Helminthic Infestations are a very common childhood problem in India. Worm infestation refers to worms that live as parasites in the human body and are the cause of disease associated with health and nutritional problems beyond gastrointestinal tract disturbances.

The nurses International Journal (2009) World Health Organization (WHO) estimates that almost 50 million people worldwide is infested by tape worms and these 50, 000 die due to disease every year. The prevalence in some of the countries exceeds 10% in these regions it accounts for up to 50% of causes of late onset epilepsy. Worm infestation is linked to lack of sanitation, lack of access to safe water and improper hygiene, therefore the occurs where ever is poverty.

The eradication of Intestinal worm infestation will never be achieved without checking prevalence of Intestinal Worm Infestation, Improvement of socio – economic conditions and spread of health education by schools, poly clinic and media specially television. The nurses and paramedical should emphasis what people need to know and what the people can do for themselves. De - worming by regular medications will also help the children for healthy growing.

2. Research Methodology

The descriptive research design was used to do a pilot study on 10 under five children to assess the prevalence of intestinal worm infestation and sample were selected by simple random sampling technique who fulfilled the inclusion criteria from selected village of Amritsar, Punjab, India. Data was collected by structured tool of sample socio demographic characteristics and stool samples were also collected for microscopic examination. This tool consist sixteen items for obtaining the personal information about subjects which were not including in the scoring system. To check the level of prevalence 0- 5 scores were there. The score 0 – shows Negative level of prevalence, 1- shows Scanty level of prevalence, 2 - shows mild level of prevalence, 3 - shows moderate level of prevalence and 4 - shows severer level of prevalence.

Level of Prevalence	Number of Worms	Score
Nil	0	0
Scanty	1 to 3	1
Mild	4 to 10	2
Moderate	10 to 20	3
Severe	20 to 40	4

3. Results and Discursion

3.1 Sample characteristics

Most of the children (31%) were at the age of 2 – 3 years and (54%) were boys belongs to (76%) Hindu religion. Majority of children (70%) living in semi pucca house, their family income were (45%) Rs. 4000 – 6000, (35%) fathers were having matriculation level of education and (68%) mothers were illiterate. (65%) of father’s occupation were Self employee and (85%) of mother’s were House wives. (81%) of source of drinking water for children were Public

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tap and (63%) type of Sanitary Latrines were House hold latrines. (80%) of children's were using tap water for drinking and (83%) of children were habitual of washing their hands before and after defecation. (58%) of children were not habitual of easting pica. (74%) of children were de - wormed.

Table 1: Frequency and Percentage Distribution of subjects according to prevalence of Intestinal Worm Infestation, N = 100

Level of Prevalence	%	n
Positive	73.0%	73
Negative	27.0%	27

The data presented in table 1 represents that out of 100 children examined 73 (73.0%) positive for various intestinal worm infestation followed by 27 (27.0%) under five children were totally normal.

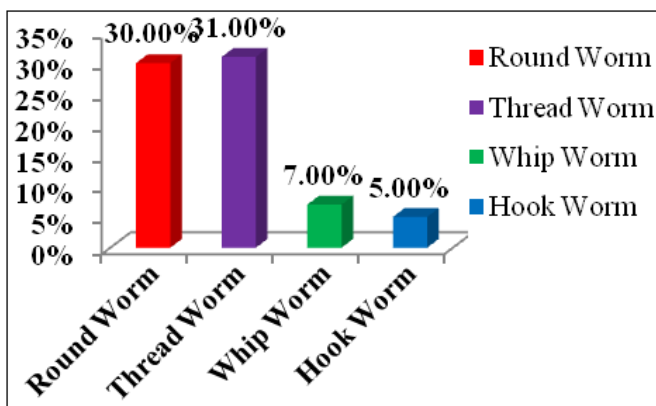


Figure 1: Percentage Distribution of subjects according to their type of intestinal Worm infestation Prevalence

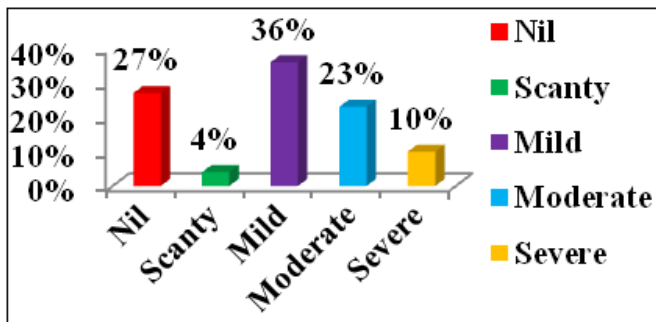


Figure 2: Percentage Distribution of subjects according to number of Intestinal Worm Infestation Prevalence

The data presented in Figure no 2 represents that out of 73% under five children 36 (36%) children were suffered with mild infestation of Intestinal worms followed by 23 (23%) were moderately infested with worms followed by 10 (10%) severely and only 4 (4.0%) were suffered with scanty infestation of worms. This table showed that 27 (27.0%) children were totally normal.

Hence it is concluded that almost 73% children were suffered with mild, moderate, severe and scanty prevalence of intestinal worm infestation.

Association of Prevalence of Intestinal worm infestation with their selected demographic variables

Table 2: Association of Prevalence of Intestinal worm infestation with their selected demographic variables, N = 100

Socio demographic variable	Frequency	x ²
Age in year		
0-1	10	.000*** Significant
1-2	20	
2-3	31	
3-4	28	
4-5	11	

Table no 2 shows that only age in years was having highly statistical significant association with the prevalence of intestinal worm infestation score at the level p<0.05. Other socio demographic variables like Gender, Religion, Education of father, Education of mother, Occupation of father and mother, Type of house, Family income, Dietary habits, Type of sanitary latrine, hand washing after defecation, de - worming of children and source of drinking water etc. statistically not having any association with prevalence of intestinal worm infestation.

4. Conclusion

The result of the study revealed that out of 100 children examined almost 73.0% under five children suffered from various intestinal worm infestations. The highest frequency of 31% were noted for Thread worm followed by 30% Round worm followed by 7% Whip worm and 5% Hook worm infestation was found. The result also revealed that under five children suffered with Mild, Moderate, Sever and Scanty infestation of Intestinal worms 36%, 23%, 10%, 4% respectively.

According to the association of prevalence of intestinal worm infestation with selected socio demographic variables age had some impact on prevalence of intestinal worm infestation. The highest prevalence 59% was noted in the age group of 2 – 4 years and significant at P<0.00 level.

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