

HELMINTHIASIS IN CHILDREN AND ITS TREATMENT WITH INDIGENOUS DRUGS

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ABSTRACT : *Helminthiasis in Children needs priority in the consideration of Child health as most of the Indian conditions are vulnerable to this problem. There are also some indigenous drugs used to combat this situation. The authors have made a clinical trial using the Indian drugs and the observations are recoded here.*

Introduction:

Helminthiasis poses great threat to the proper development of childrens health in developing countries including India. Epidemiological surveyes regarding worm – infestation in various part of the country reveal a high incidence of helminthiasis. Slums and rural areas are highly effected probably due to defective measures of sewage disposal an poor practices of hygiene. Children, as they are vulnerable to all types of infestations, easily succumb to it due to environmental conditions and inadequate parental attention for maintaining health and effects their further life directly or indirectly. Conditions may be associated with the loss of blood in case of ankylostomiasis. Various malabsorption in ascariasis etc. like nutritional disorders like anaemia, hypoproteinemia and many other diseases like epilepsy, anorexia etc.

The present paper envisages the findings of an exploratory study to ascertain the efficacy of some known Ayurvedic anthelmintic

drugs in the treatment of Helminthiasis among school- going rural children belonging to the deprived and under priviledged major sub-section of the population.

Materials and methods

Sample – 310 children (238 males and 72 females, age group: 5-13 years) formed the basis of this study. Initially 570 children were subjected to stool examination out of which 310 revealed the tendency of Helminthiasis. 89 exhibited protozoal infections and in the remaining 171 cases stool were found negative for any infestations. Cases, positive for ascariasis, oxuriasis, ankylostomiasia and H. nana were included in this study.

Procedure – Children were provided with small clean empty bottle with rubber cock on the day preceding the stool examinations. Necessary instructions were given to collect the stool from the last portion and bring the

same on the day advised. Parents were also requested to assist their wards in this matter.

Qualitative methods were only employed for stool examination and those found negative for any ova of helminthes were labelled as negative. For such cases, stool examination was not repeated.

Cases, where the stool was found negative for three consecutive days after treatment, were labelled as cured. Cases positive for ova were again subjected to 2nd course of drug and cases not responding to treatment were labelled as unchanged. As such, the present study is only concerned with a study of cases ascertained to suffer from Helminthiasis.

This study being an exploratory one, signs/symptoms of worm infestations were not noted.

Drugs and Dose Schedule:

- 1) Thread worm and Round Worm- Round worm cases received Vaca (Acorus Calamus) powder 250mg TDS for 3 days and the children with thread worm infestation were given Syrup Vidanga (Embelia ribes) 20ml TDS (250mg/5 ml) for 3 days.
- 2) Hook worm- Bhallataka oil 1 drop B.D. for 2 days followed by purgative.
- 3) H.Nana- Kampilla (Mellotus Phillipinenses) crude powder, 250 mg B.D. for two days.

Observations and Discussion

Age Incidence – Incidence of Helminthiasis as matched to age group (Table - 1) observes

that the highest number (95) of subjects fall in the age range 9-11 years and thereafter the age groups of 5-7 years (91), 7-9 years and 11-13 years respectively (Table – 1).

TABLE – I

Age in years	Total		Male		Female	
	No.	%	No.	%	No.	%
5-7	91	29.35	69	22.26	22	7.10
7-9	63	20.33	53	17.10	10	3.22
9-11	95	30.64	67	21.61	28	9.03
11-13	61	19.68	49	15.81	12	3.87

Sex-Incidence – 72 girls were found to suffer from Helminthiasis in the present study as against 238 boys. This is not objective ratio of male /female children in this regard but largely because of unavailability of girls in the schools opted for extracting the sample.

Caste Incidence – Caste Incidence (Table – 2) indicates that 187 cases of the total samples were represented by children of Kurmi community which denotes the demographic predominance only of this community in this area.

TABLE –II

Cast e	No.	Percentage
Kurmi	187	60.32
Harizan	59	19.03
Brahmin	36	11.62
Misc	28	9.03

Incidence of worm infestations:

Ova of round worm was found in the majority of stools and next to it was ova of

thread worm (Table – 3). Children having mixed infestation of 2 helminths were included in one group only. They were labelled as per predominance of particular type of ova in stool (Table – 3).

TABLE-III

Type of worm	No	Percentage
Round	147	47.42
Thread	109	35.16
Hook	35	11.29
H. Nana	19	6.13

Drug Administration:

The first course: Results of the first course indicated that 87 out of 147 cases fo Round worm were cured and 60 cases fo thread worm got relief. Effect of all the three drugs is shown in Table – 4.

TABLE –IV

Type of worm	Total No.	Cured	Percentage
Round	147	87	59.18
Thread	109	60	55.04
Hook	35	28	80.00
H. Nana	19	19	100.00

Second course: The uncured cases in the first course were again subjected to the same treatment and 35 out of 60 cases of round worm got relief as shown in table – 5.

TABLE – V

Type of worm	Total No.	Cured	Percentage
Round	60	35	40.23
Thread	49	26	43.33
Hook	7	5	71.43

Results

All the cases of Hymenolepiasis were cured by M.P. Powder, of Semicarpus anacardium, Oil was also found effective for hookworm almost equally. The results pertaining to Vaca and Vidanga are shown in table-6.

TABLE – VI

Type of worm	Total No.	Cured Unchanged			
		No.	%	No.	%
Round	147	122	83.00	25	17.00
Thread	109	86	78.90	23	21.10
Hook	35	33	94.28	2	5.72
H. Nana	19	19	100.00	-	-

Cases not responding to above mentioned regimen were subjected to other known specific treatment.

Conclusion

Table -6 clearly indicates that vidanga and Vaca are effective in oxuriasis and ascariasis. Bhallatak oil and kamila Powders are highly effective in ankylostomiasis and

hymenolepiasis respectively. All the drugs are safe for children as no side effect was noticed during the study. Mode of action of these drugs has not been evaluated, being the exploratory study.

Treatment with these drugs is observed to be economical as the total cost for each case is very less.

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