

Knowledge and practice on use of anthelmintics by mothers in selected areas in the Colombo District

Periodic chemotherapy with effective, broad-spectrum, single dose, safe and relatively cheap drugs have been recognised as one of the most cost effective strategies in the short term for controlling morbidity due to soil-transmitted nematodes [1].

This cross sectional study carried out over a period of 6 months investigated the knowledge and practices of use of anthelmintics by 217 mothers (109 from urban and 108 from rural areas) having children between 6-12 years of age, living in the district of Colombo. The sample size was determined by assuming the prevalence of de-worming with anthelmintics among the community as being 50% with an allowable error of 20%. Approval was obtained from the Ethical Review Committee of the Faculty of Medicine, University of Colombo.

76% of the mothers were between 26-40 years. A majority (88%) had studied up to the Ordinary Levels examination or more. 89% were housewives. Over 95% of mothers gave anthelmintics to their children. The minority of less than 5% who did not treat their children indicated the reasons for not using anthelmintics as the child being too young, the stool examination report result being negative or the fact that they thought treatment was unnecessary. Approximately 65% of mothers started anthelmintics when the child was between one and two years of age and over 75% used them at frequent intervals of every three or six months. The drugs were obtained mainly from the family physician in the area (67.5%). The tablet form of the drug was preferred by 71% of mothers

as compared to syrups. The commonest reasons for seeking treatment with anthelmintics was when the child did not eat, or complained of abdominal pain or when the mothers noticed pruritus ani.

Majority (67%) of mothers indicated that they did not know the name of the drug given and 33% of them knew the name of the drug as "mebendazole" or "pyrantel pamoate" (or they identified it by a trade name given for the drug). The knowledge regarding the name of the drug was significantly higher in mothers who had a better education ($\chi^2 = 14.31$; $p < 0.001$), but there was no significant difference in the knowledge regarding dose required (table 1). There was no significant association regarding knowledge of anthelmintic use in pregnancy and the education status ($p = 0.228$). The 38 mothers who did not take drugs during their pregnancy indicated that they thought the drugs would have an adverse impact on the fetus and on them.

It is not surprising that a majority of mothers provide their children with anthelmintics at regular intervals. Sri Lanka's social indicators are impressive for a low-income country with a per capita income of around US\$ 850 (average for the last decade). It has a high level of attainment in the Human Development Index (0.711) and an adult literacy of 90% [2]. About 80% of the state and private schools in Sri Lanka participate in the School Medical Inspection programmes which encourage parents to deworm their children periodically [1, 3].

Table 1. Knowledge regarding anthelmintics

	Up to Grade 5		Grades 6-10		Over Grade 10	
	n	%	n	%	n	%
Name of drug (n=209)						
Known	3	12	27	26.2	38	46.9
Not known	22	88	76	73.8	43	53.1
$(\chi^2 = 14.31; p < 0.001)$						
Dosage required (n=209)						
Known	9	36.0	4	46.6	47	58.0
Not known	16	64.0	55	53.4	34	42
$(\chi^2 = 4.52; p = 0.104)$						
Safe to use during pregnancy (n=211)*						
Yes	18	75.0	82	86.3	66	77.6
No	6	25.0	13	13.7	19	22.4
Do not know	0	0	6	2.8	1	0.5
$(\chi^2 = 2.95; p = 0.228)$						

* The "do not know" category was excluded in the Chi Square Test.

The State Pharmaceutical Manufacturing Corporation manufactures mebendazole 100mg and 500mg tablets (Rs.0.70 and Rs.2.80 respectively) that are being prescribed widely by the medical personnel due to its low cost, efficacy and safety. Pyrantel pamoate available in the syrup form is preferred by mothers for younger children to whom administration of a tablet form of an anthelmintic proves more difficult. Sixty one percent of mothers started anthelmintics when the child was between one to two years of age indicating that they were aware of government policies regarding deworming of children in Sri Lanka [4]. Sri Lanka has a well educated population and literacy rates are high particularly among women. Thus the administration of anthelmintics by the family physicians is supplemented by regular deworming of the children by the mothers who contributes to the global programme of helminth control.

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