PREVALENCE OF SOIL TRANSMITTED PARASITES IN RAW VEGETABLES OF KATHMANDU VALLEY AND STOOL SAMPLES OF SCHOOL CHILDREN

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BY
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ABSTRACT

This study was carried out in vegetables and stool samples from June 2006 to July 2007 to ascertain the prevalence of parasites. A total of 261 vegetable samples and 315 stool samples of school children were collected from Kathmandu Valley. The stool samples were examined by formal-ether technique and direct smear technique. For vegetables, saturated brine flotation method was used.

Out of total vegetable samples, 29.5% (77/261) were found to be contaminated with different parasites, *Cyclospora* spp. being the most prevalent (28.4%, 74/261) . The high rate of contamination was found in wet season (32.2%, 50/154) than dry season (25.2%, 27/107) ($P>0.05$). In school children, the overall prevalence rate of parasitic infections was 65.4%, helminth parasites being dominant. *Trichuris trichiura* (29.2%) was the most common helminth. The female children had the higher parasitic prevalence rate (68.3%, 122/178) than the male counterparts (61.3%, 84/137) ($P>0.05$). The prevalence of multiparasitism was 61.6% while that of monoparasitism was 38.4%. *Indo-Aryans* had significantly higher prevalence rate (66.3%, 67/101) followed by *Tibeto-Burmans* (65.7%, 117/178) and *Dalits* (61.1%, 22/36) ($P>0.05$). The children without toilet at their home were more infected (79.5%, 58/73) than that of having toilet (61.2%, 148/242) ($P<0.05$). The children of farmers had higher prevalence rate (73.9%) than other occupation. The high prevalence of parasitic infection (67.0%) was found in those children who had not taken anthelminthic drug in past six months compared to those who had taken the drugs (33.3%) ($P<0.05$). The children without nail cut had the more prevalence (74.2%) of parasitic infection than those with nail cut (61.2%) ($P<0.05$).

Key Words: Vegetables, *Cyclospora*, school children, Kathmandu.

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LIST OF ABBREVIATIONS

A. lumbricoides	*Ascaris lumbricoides*
B. hominis	*Blastocystis hominis*
C. mesnili	*Chilomastix mesnili*
E. coli	*Entamoeba coli*
E. hartmani	*Entamoeba hartmani*
E. histolytica	*Entamoeba histolytica*
E. nana	*Endolimax nana*
H. diminuta	*Hymenolepis diminuta*
H. nana	*Hymenolepis nana*
I. butschlii	*Idamoeba butschlii*
S. stercoralis	*Strongyloides stercoralis*
T. hominis	*Trichomonas hominis*
T. trichiura	*Trichuris trichiura*
CMA	Community Midwife Auxiliary
GI	Gastrointestine
NITMPHR	National Institute of Tropical Medicine and Public Health Research
NPC	National Planning Commission
NVAP	Nepal National Vitamin A Program
STH	Soil Transmitted Helminthes
VDC	Village Development Committee
WHO	World Health Organization

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