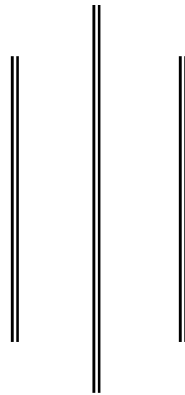


INTESTINAL PARASITIC INFECTION IN CHILDREN IN
KATHMANDU VALLEY, NEPAL: A STUDY IN KANTI
CHILDREN'S HOSPITAL, MAHARAJGUNJ, KATHMANDU,
NEPAL.

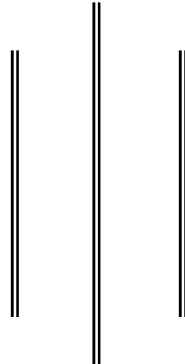


A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE MASTER'S DEGREE IN SCIENCE (ZOOLOGY)

SUBMITTED BY

SAPANA KANDEL



SUBMITTED TO:

CENTRAL DEPARTMENT OF ZOOLOGY (PARASITOLOGY)
INSTITUTE OF SCIENCE AND TECHNOLOGY,
TRIBHUVAN UNIVERSITY, KIRTIPUR,
KATHMANDU, NEPAL
YEAR- 2008.

TRIBHUVAN UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY
CENTRAL DEPARTMENT OF ZOOLOGY
KIRTIPUR, KATHMANDU, NEPAL

RECOMMENDATION

It is my pleasure to mention here **Mrs. Sapana Kandel** has carried out the thesis work entitled "**INTESTINAL PARASITIC INFECTION IN CHILDREN IN KATHMANDU VALLEY, NEPAL: A STUDY IN KANTI CHILDREN'S HOSPITAL, MAHARAJGUNJ, KATHMANDU, NEPAL**" for the partial fulfillment of the **M. Sc. Degree in Zoology (Parasitology)** under my supervision and guidance. To the best of my knowledge, this is an original research study and brings out useful results and findings in the concerned field.

I strongly recommend this thesis for approval for the partial fulfillment of the requirement for the Master's Degree of Science in Zoology (Parasitology).

.....

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LETTER OF APPROVAL

On the recommendation of supervisor **Mr. Janak Raj Subedi**, this thesis entitled "INTESTINAL PARASITIC INFECTION IN CHILDREN IN KATHMANDU VALLEY, NEPAL: A STUDY IN KANTI CHILDREN'S HOSPITAL, MAHARAJGUNJ, KATHMANDU, NEPAL" submitted by **Mrs. Sapana Kandel** has been approved for examination and submitted to the Tribhuban University for the partial fulfillment of the requirements for M. Sc. Degree in Zoology (Parasitology).

.....
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KIRTIPUR, KATHMANDU, NEPAL

APPROVAL

We, the members of the expert committee, evaluated the dissertation work entitled " "INTESTINAL PARASITIC INFECTION IN CHILDREN IN KATHMANDU VALLEY, NEPAL: A STUDY IN KANTI CHILDREN'S HOSPITAL, MAHARAJGUNJ, KATHMANDU, NEPAL." and approved that Mrs. Sapana Kandel is qualified for awarding M. Sc. in Zoology with parasitology as a special paper.

Expert Committee

.....
Internal Supervisor

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External Examiner

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Date:

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ABSTRACT

The present study entitled "Intestinal Parasitic Infection in Children of Kathmandu Valley, Nepal: A Study in Kanti Children's Hospital Maharajganj, Kathmandu." has unfolded some facts about the status of parasitic infections in the patients of Kanti Children's Hospital. Total number of samples collected were 278 from the children of age group 01-14 years of both sexes and stool samples were examined by fecal smear preparation method. A survey was also carried out to determine knowledge, attitudes, and practices regarding intestinal parasites by means of structural questionnaires to the parents belonging to different castes during July to September 2005.

Out of 278 children, 45.32% were infected. Among positive samples prevalence rate in male children were 45.91% and 44.53% in female children. So there was no significant difference in prevalence of parasites in two sexes. Statically the prevalence of intestinal parasite according to sex wise was found to be significant ($\chi^2=0.06$) Prevalence of *Giardia lamblia* was found to be 21.23% *Entamoeba histolytica* 7.91% in protozoan parasites, While *Ascaris lumbricoides* 17.99%, Hookworm 2.15%, *Hymenolepis nana* 1.79%, *Enterobius vermicularis* 1.08%, *Trichiuris trichiura* 1.08% and *Strongyloides stercoralis* 1.43% in helminthes. *Ascaris lumbricoides* and *Giardia lamblia* were the most dominant helminthes and protozoan parasite respectively. Regarding the age group high prevalence was found in 10-12 years age group 63.36%. The minimum prevalence was observed in children of age group 1-3 years 26.66%. But difference was found to be significant ($\chi^2=15.21$)

The high prevalence of intestinal parasites is an indication of unhygienic condition or the area, which is due to children behaviour, poor sanitary condition, illiteracy, lack of awareness etc. These contributing factors are responsible for transmitting the intestinal parasites. Health education is advised to play a vital role in the control of intestinal and other parasitic infections.

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ABBREVAITIONS AND ACRONYMS

CDZ	Central Department of Zoology
cm	centimeter
FPA	Family Planning Association
gm	Gram
ICIMOD	International Center for Integrated Mountain Development
IFPPCP	Integrated Family Planning and Parasite Control Project
inf	Infection
mg	Milligram
ml	Milliliter
mm	Millimeter
nm	Nanometer
rpm	rounds per minute
sp	Species
T.U.	Tribhuvan University
W.H.O.	World Health Organization
μm	Micrometer