

**STUDY ON INTESTINAL INFECTIONS BY PARASITE  
AND SOME BACTERIA AMONG ELDERLY PEOPLE OF  
KATHMANDU VALLEY**

**A  
DISSERTATION  
PRESENTED TO CENTRAL DEPARTMENT OF MICROBIOLOGY  
TRIBHUVAN UNIVERSITY**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE  
AWARD OF THE DEGREE OF MASTER OF SCIENCE IN  
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(MEDICAL MICROBIOLOGY)**

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**2006**

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This is to certify that **Mr. Bikash Shakya** has completed this dissertation work entitled "**STUDY ON INTESTINAL INFECTIONS BY PARASITE AND SOME BACTERIA AMONG ELDERLY PEOPLE OF KATHMANDU VALLEY**" as a partial fulfillment of Master of Science Degree in Microbiology under our supervision. To our knowledge, this work has not been submitted for any other degree.

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## ABSTRACT

Present study was carried out among the elderly people (60+ years of age) from August 2005 to July 2006 in Kathmandu Valley. Stool samples were collected from a total of 235 elderly people (122 from government elderly home, 66 from private elderly home and 47 from a rural community (i.e those not living in elderly homes). Samples were proceeded for the required studies. The overall prevalence of intestinal parasites was found to be 41.7%, out of which 30.6% had multiple parasitism. The elderly people at government elderly home had higher parasitic prevalence (50.8%) followed by the elderly people of rural community (46.8%) and those at private elderly homes (21.2%) ( $P < 0.05$ ). Males were marginally more infected (43.8%) than female (40.4%) ( $P > 0.05$ ) and nearly equal protozoal and helminthic infection were found in both the genders. *Trichuris trichiura* (39.4%) was the commonest helminth and *Entamoeba histolytica* (19.7%) was the commonest protozoa found. *Indo-Aryans* had higher parasitic infection rate than the *Tibeto-Burmans* (46.9 Vs. 37.1%) ( $P > 0.05$ ). Literate people were less infected (26.2%) than the illiterate people (45.1%) ( $P < 0.05$ ). Likewise, vegetarians were less infected (30.1%) than non-vegetarian (48.0%) ( $P < 0.05$ ). *Salmonella* spp. in 3 samples and *Vibrio* spp. in 2 samples were found where as *campylobacter* spp. and *Shigella* spp. were found in nobody in the study.

**Key words:** Elderly people, elderly homes, intestinal parasites, Kathmandu

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## LIST OF ABBREVIATIONS

AF	: Acid Fast
AIDS	: Acquired Immunodeficiency Syndrome
CCDA	: Charcoal Cefoperazone Deoxycholate Agar
CDC	: Center for Disease Control
CPE	: <i>Clostridium perfringens</i> Enterotoxin
EAEC	: Enteroaggregative <i>E. coli</i>
EIEC	: Enteroinvasive <i>E. coli</i>
EHEC	: Enterohemorrhagic <i>E. coli</i>
ETEC	: Enterotoxigenic <i>E. coli</i>
GI	: Gastrointestinal
HIV	: Human Immunodeficiency Virus
hpf	: High power field
HUS	: Haemolytic Uremic Syndrome
KIA	: Kligler Iron Agar
MoH	: Ministry of Health
OPD	: Out Patient Department
PMN	: Polymorphic Mononuclear
RBC	: Red Blood Corpuscles
S.S	: <i>Salmonella Shigella</i>
STH	: Soil Transmitted Helminth
TCBS	: Thiosulphate Citrate Bile salt Sucrose
WBC	: White Blood Corpuscles
WHO	: World Health Organization

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