

**STUDY OF PREVALENCE OF INTESTINAL PARASITIC  
INFECTION AMONG HIV SEROPOSITIVE SUBJECTS AND HIGH  
RISK GROUP FOR HIV INFECTION IN BAGMATI ZONE, NEPAL**

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## RECOMMENDATION

This is to certify that **Mr. Nabaraj Adhikari** has completed this dissertation work entitled **“STUDY OF PREVALENCE OF INTESTINAL PARASITIC INFECTION AMONG HIV SEROPOSITIVE SUBJECTS AND HIGH RISK GROUP FOR HIV INFECTION IN BAGMATI ZONE, NEPAL”** 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

The objective of this study was to determine the prevalence of intestinal parasites in HIV infected subjects and high risk group population for HIV infection in Nepal. A cross sectional study was conducted on 112 HIV infected subjects and 84 high risk group subjects from June to November 2005. A single stool specimen were examined for the detection of protozoal trophozoites, oocyst and cysts and helminthic eggs and larva. Microscopic examination was done by normal saline wet mount, iodine preparation and Kinoyun modified Ziehl Neelsen staining method. Also the stool specimens were concentrated by formol ether sedimentation and Sheather's sucrose floatation technique. The overall prevalence of intestinal parasites was found 35.7% (26.7% in HIV infected subjects and 47.6% in high risk group population). *Trichuris trichiura* was the commonest parasite in HIV infected subjects (63.3%), whereas hookworm was the commonest parasite among high risk group population (62.5%). We found association of parasitic infections with the gastrointestinal tract symptoms in both population groups. Multiparasitic infections were prominent among HIV infected subjects (7.2%) than high risk group population (4.8%) though the result was not significant. Similarly the protozoal infections were found more prominent in HIV infected subjects (4.5%) than high risk group population (1.2%). The opportunistic protozoa *Cryptosporidium parvum* was detected only in HIV infected subjects (1.8%). Our study highlights the importance of testing for intestinal parasites in patients who are HIV positive and increasing awareness for HIV testing among high risk group population.

*Key words* : Nepal, HIV, intestinal parasites, high risk group

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## ABBREVIATIONS

AIDS	:	Acquired Immunodeficiency Syndrome
ART	:	Anti Retroviral Therapy
CD	:	Cluster of Differentiation
CDC	:	Centers for Disease Control
DNA	:	Deoxyribonucleic Acid
ELISA	:	Enzyme linked immunosorbent assay
HAART	:	Highly Active Anti Retroviral Therapy
HIV	:	Human Immunodeficiency Virus
IgG	:	Immunoglobulin G
NCASC	:	National Center for AIDS and STD Control
NTS	:	Non-Typhoidal Salmonella
OIs	:	Opportunistic Infections
PCR	:	Polymerase chain reaction
RNA	:	Ribonucleic Acid
STC	:	South Asian Association for Regional Cooperation Tuberculosis Center
STD	:	Sexually Transmitted Diseases
TB	:	Tuberculosis
TH <sub>2</sub>	:	T-helper type2
UN	:	United Nation
USA	:	United States of America
VDRL	:	Veneral Disease Research Laboratory
VL	:	Viral Load
WHO	:	World Health Organization

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