REPRODUCTIVE TRACT INFECTIONS AMONG WOMEN ATTENDING GYNAECOLOGICAL OUTPATIENT DEPARTMENT TRIBHUVAN UNIVERSITY TEACHING HOSPITAL

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DISSERTATION

SUBMITTED TO THE CENTRAL DEPARTMENT OF MICROBIOLOGY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE IN MICROBIOLOGY (ENVIRONMENT AND PUBLIC HEALTH)

BY

MADAN SINGH BOHARA

CENTRAL DEPARTMENT OF MICROBIOLOGY

TRIBHUVAN UNIVERSITY

KIRTIPUR, KATMANDU, NEPAL

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RECOMMENDATION

This is to certify that **Mr. Madan Singh Bohara** has completed this dissertation work entitled "**Reproductive tract infections among women attending to Gynaecological Outpatient Department of Tribhuvan University Teaching Hospital**" as a partial fulfillment of M.Sc. degree in Microbiology under our supervision. To our knowledge this work has not been submitted for any other degree.

Mr. Binod Lekhak	**Dr. Anand Ballabh Joshi**	**Dr. Geeta Gurung**
Assistant Professor	Associate Professor	Associate Professor
Central Department of Microbiology	Department of Community Medicine and Family Health	Department of Gynae & Obstetric
Tribhuvan University Kathmandu, Nepal	Tribhuvan University Teaching Hospital, Maharajgunj, Kathmandu, Nepal	Tribhuvan University Kirtipur, Teaching Hospital, Maharajgunj, Kathmandu Nepal
Date:	Date:.....	Date:.....

CERTIFICATE OF APPROVAL

On the recommendation of **Mr. Binod Lekhak, Dr. Anand Ballabh Joshi** and **Dr. Geeta Gurung,** this dissertation of **Mr. Madan Singh Bohara** is approved for the examination and is submitted to Tribhuvan University in partial fulfillment of the requirements for M.Sc. degree in Microbiology.

Date: .....

Dr. Anjana Singh
Head of Department
Central Department of Microbiology
Tribhuvan University
Kirtipur, Kathmandu
Nepal

BOARD OF EXAMINERS

Recommended by:

Mr. Binod Lekhak
Supervisor

Dr. Anand Ballabh Joshi
Supervisor

Dr. Geeta Gurung
Supervisor

Approved by:

Dr. Anjana Singh
Head of Department

Examined by:

Ms. Basudha Shrestha
External Examiner

Ms. Shaila Basnyat
Internal Examiner

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Madan Singh Bohara

Date: ----------

ABSTRACT

Many women and men suffer from reproductive tract infections (RTIs), including sexually transmitted infections (STIs). Women often suffer silently with reproductive tract infections. RTI often cause discomfort and lost economic productivity. Studies of the prevalence of these infections in South Asia have been hindered by low participant rates, and little is known about rates among the married women.

A hospital based cross-sectional study of RTIs was conducted from July to November 2006 among the married women 15 to 49 years of age in Gynaecological Outpatient Department of Tribhuvan University Teaching Hospital Maharajgunj, Kathmandu. The women were questioned about the symptoms, received speculum and pelvic examinations and collected samples for laboratory test. Ethical approval was taken from the Institutional Review Board, Institute of Medicine, Maharajgunj, Kathmandu. Verbal and written consent was taken from each patient. A total of two hundred sixty nine samples (104 vaginal discharge, 104 endocervical discharge and 61 blood samples) from 104 patients were examined by microscopy, culture and serological procedure to identify the causative agents of RTIs. The mean age of the women were 35.5 years. Majority of women were illiterate; but 20.19 percent had more than five years of education. The Brahmin ethnic group (32.69%) was highest in study population. Majority of patients' husbands (31.73 %) were services holder. Seventy percent women were living with husband, 9.62 percent were separated, 1.96 percent was divorced, 0.96 percent was widow and 13.46 percent husbands were living away from home. The first mean age at menarche was 14.5 years. Majority had been pregnant twice or thrice and majority had having one or two living children, but 9.62 percent had never been pregnant. Sixty one percent patients reported normal menstruation, 28.85 percent had abnormal and 9.62 percent were menopause. Six percent women had sterility, 15.38 percent had still birth and 6.73 percent miscarriage. Overall 26.39 percent (71/269) samples were positive for different etiological agents of STIs/RTIs. Among STIs caused by various organisms *Candida albicans* (25%) showed highest prevalence. Bacterial vaginosis was diagnosed in 18 percent and 12 percent had *Trichomonas vaginalis.* Prevalence of *Neisseria gonorrhoae was* found 6.76 percent. Women of 25-35 years of were more likely to associated with laboratory diagnosis of SITs than those with others age groups. Women with more than five years of education were less likely to have STIs than those with no education. The infection rate was found highest in laborers wives. Infection rate (39.42%) was highest in women living with husband. None of the cases were positive for Hepatitis B infection. Low socio-economic status and illiterate women had high prevalence of RTIs. Education and outreach are needed to reduce the stigma, embarrassment and lack of knowledge related to RTIs.

Key words: *Reproductive tract infection, Married women, Gynae Department, Teaching Hospital*

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LIST OF ABBREVIATIONS

µl	Micro litre
µm	Micro meter
Ag	Antigen
AIDS	Acquired Immunodeficiency Syndrome
BV	Bacterial Vaginosis
CA	Chocolate Agar Media
CDC	Centers for Disease Control
Co_2	Carbon dioxide
D/W	Distilled Water
DNA	Deoxyribose Nucleic Acid
DV OPD	Dermatology and Venerology Out Patients Department
GC	Gonococci
gm	Gram
GPYC	Gram-positive Yeast Cells
GYNAE Dept.	Gynaecological Department
H_2O_2	Hydrogen Peroxide
HBc Ag	Hepatitis Core Antigen
HBe Ag	Hepatitis e Antigen
HBs Ag	Hepatitis Surface Antigen
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HSV	Herpes Simplex Virus
IUD	Intrauterine Device
L	Litre
ml	Milli litre
NA	Nutrient Agar
NaOH	Sodium Hydroxide
nm	Nano meter
OPD	Out Patients Department
Org	Organization

PAP	Papspeanicolan
PCR	Polymerase Chain Reaction
PID	Pelvic Inflammatory Disease
RTI	Reproductive Tract Infection
SD	Standard Deviation
SDA	Sabourd Dextrose Agar
SEAR	South East Asian Region
Spp	Species
SPSS	Software Programme for Statistical System
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
T M	Thayer Martin
TUTH	Tribhuvan University Teaching Hospital
TV	*Trichomonas vaginalis*
USA	United State of America
VDC	Village Development Committee
WHO	World Health Organization

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