

**“PREVALENCE OF PULMONARY TUBERCULOSIS IN
JUTPANI V.D.C. CHITWAN, NEPAL”**

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With Special Paper Parasitology

Submitted To:

Central Department of Zoology
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Tribhuvan University
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January, 2013

RECOMMENDATION

This is to recommend that the thesis entitled “**Prevalence of Pulmonary Tuberculosis in Jutpani VDC, Chitwan, Nepal**” has been carried out by **Dr. Kapil Amgain** for the partial fulfillment of “**Master’s Degree of Science**” in Zoology with special paper “**Parasitology**”. This is his original work and has been carried out under my supervision. To the best of my knowledge, this thesis work has not been submitted for any other degree in any institutions.

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On the recommendation of supervisor “**Dr. Mahendra Maharjan**”, this thesis submitted by **Dr. Kapil Amgain** entitled “**Prevalence of Pulmonary Tuberculosis in Jutpani VDC, Chitwan, Nepal**” is approved for the examination and is submitted to the Tribhuvan University in partial fulfillment of the requirements for “**Master’s Degree of Science**” in Zoology with special paper “**Parasitology**”.

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DECLARATION

I hereby declare that the work presented in this thesis has been done by myself, and has not been submitted elsewhere for the award of any degree. All the sources of information have been specifically acknowledged by reference to the author(s) or institution(s).

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ABSTRACT

Tuberculosis (TB) is one of the major public health problems in the developing countries like Nepal. With the objective to determine the situation of TB in Jutpani VDC, the present study was carried out from the month of July 2012 to December 2012. During the study period, a total of 600 sputum samples from 200 TB suspected patients, 225 sputum samples from 75 family members of TB patient currently under DOTS and 117 sputum samples from 39 DOTS completed TB patients were collected and examined in the Laboratory of Jutpani Primary Health Center (PHC). Diagnosis was made after staining the sputum smear by Z-N staining method and examined under light microscope. A questionnaire survey of 57 PTB patients was done to assess their knowledge, attitude and preventive practice for TB. Out of 200 TB suspected patients, 18 (9%) were found to be AFB positive. Among patients diagnosed as having Pulmonary Tuberculosis (PTB), higher number (55.56%) of males than females (44.44%) were found which was found to be statistically insignificant ($\chi^2_{cal.} = 0.4524, P < 0.01$). Highest prevalence of TB infection (36.89%) was found to be in the age group of 30-40 year. All family members (75) screening of the 16 PTB patients currently undergoing DOTS treatment were found sputum negative. Similarly, screening of DOTS completed PTB patients (39) of Jutpani VDC were also found to be negative. Prevalence of TB was found to be highest in Jutpani VDC in comparison to other VDC under Jutpani PHC. Majority of the patients had acceptable attitudes but the knowledge regarding cause, transmission, prevention of the tuberculosis was not adequate. So there is still a need to strengthen the knowledge of TB through mass media to public level.

Key words: Prevalence, Pulmonary Tuberculosis (PTB), KAP Study, Jutpani VDC, Chitwan

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LIST OF ABBREVIATIONS

Abbreviated form	Details of abbreviations
AFB	Acid Fast Bacilli
CDC	Center for Disease Control
DNA	Deoxyribonucleic acid
DoHS	Department of Health and Services
DOTS	Directly Observed Treatment Short Course
ELISA	Enzyme linked Immunosorbent Assay
HIV	Human Immunodeficiency Virus
IUATLD	International Union Against Tuberculosis and Lung Disease
L-J	Lowenstein- Jensen
MDR-TB	Multi Drug Resistance- Tuberculosis
MGIT	Mycobacterial Growth Indicator Tube
MOTT	<i>Mycobacterium</i> Other Than Tubercle
MTB	Miliary Tuberculosis
MTBC	<i>Mycobacterium tuberculosis</i> Complex
PPD	Purified Protein Derivative
PCR	Polymerase Chain Reaction
PGL	Persistent Generalized Lymph Adenopathy
PTB	Pulmonary Tuberculosis
RNA	Ribonucleic Acid
SAC	South Asian Association for Regional Corporation
STC	SAARC Tuberculosis Center
TB	Tuberculosis
WHO	World Health Organization
ZN	Ziehl- Neelsen