

PREVALENCE OF DIABETES AND RISK FACTORS IN NEW AND RELAPSE TUBERCULOSIS CASES IN KATHMANDU VALLEY, NEPAL

Introduction

Diabetes mellitus (DM) has become a major health issue in the developing countries. DM in was reported as approximately three times the risk of developing TB, and two times the risk of relapse TB in other countries. Despite rapid increment of DM, DM screening is not routine for TB patients in Nepal. Analyzing risk factors of relapse cases would be crucial for TB programs because of drug resistance and treatment cost. Describing for the details of association between DM and development and relapse of TB may contribute to selection of target group, development of new screening strategy and innovation in TB treatment.

Globally the incidence of TB has declined slowly, and the burden of DM has steadily increased in recent decades in developing countries. DM was reported as approximately three times the risk of developing TB, and two times the risk of for relapse TB.

The affected age group by TB has shifted to elderly population in many developing and developed countries including Nepal. There are many study reports showing the evidence that DM is an important risk factor for development of TB. Moreover, elderly population is also a group with high prevalence of TB. There is, thus, the concern that DM affects development of TB and treatment outcome. However, the link between DM and new and relapse TB has not been studied previously in Nepal.

In Nepal, the incidence and prevalence of all forms of TB were estimated as 163 and 241 per 100,000 populations, respectively in 2012. The incidence and prevalence has not been decreasing, however the shift of peak age to elder populations has been observed and it has increased in these years among elder population over 65 years old.

Rationale/Justification

Retreatment to relapse TB could be a challenge in the future of Nepal, because of drug resistance, side effect of the anti-TB drugs and treatment cost for long treatment period. DM has been a major health issue and reported as an important risk factor of development and relapse of TB. Therefore, effective detection and treatment of DM for TB patients might be important components that reduce the number of relapse and retreat patients.

This study is designed as a cross sectional study with relapse and newly diagnosed TB cases in Kathmandu valley.

Objectives

The overall objective of the study "To study the association between DM and new and relapse TB cases in Kathmandu valley".

The specific objectives of the study;

- To evaluate the DM prevalence among new and relapse TB cases
- To identify the demographic and clinical risk factors against relapse TB cases
- To get the current situation of DM screening implementation on new and relapse TB cases as the baseline data in Nepal

Statement of the Problems

In many developing countries, TB has been still a major public health issue and a common communicable disease. Despite their collective effort, incidence of TB has declined in recent years very slowly. TB complicated with DM could be one of risk factors for emergence of drug resistant TB leading to prolonged treatment and relapse of the disease. In a developing country like Nepal, the primary health facility conducting the routine DM screening among TB patients is not common.

Operational Methodologies for Data Collection

