Title: Prevalence of Masked Hypertension in Diabetics and Non-Diabetics: A Hospital Based Comparative Study from Nepal

Category: Prevention

Abstract

Background and Objectives: Measuring the true blood pressure level is sometimes very hard in clinical practice due to large variability in blood pressure. In such cases, 24-hour ambulatory blood pressure monitoring (ABPM) is useful for the assessment of the clinical blood pressure level and detect masked hypertension for the prediction of cardiovascular prognosis. A comparative study has conducted to determine the prevalence and predictors of masked hypertension among persons with diabetes and non-diabetics mellitus in Nepal.

Methodology: This is a hospital-based comparative study conducted in the in-patients or out-patients attending in the Division of Cardiology and Internal Medicine at B.P. Koirala Institute of Health Sciences, Dharan, Nepal. The study was conducted for a period of one year.

A total of fifty four persons with diabetes mellitus and 54 normal individuals as control group underwent ambulatory blood pressure monitoring. Prevalence and predictors of masked hypertension was searched according to case definition.

Results: The prevalence of masked hypertension among diabetic persons was 57.4% (CI: 44.21% - 70.59%) and among non-diabetics was 37.0% (CI: 24.12% - 49.88%). There is a significant difference of masked hypertension between diabetic and non-diabetic mellitus persons (p-value: 0.027). Diabetic neuropathy was significantly associated with increased risk of masked hypertension in diabetic persons.

Conclusion: Prevalence of masked hypertension is more in diabetics as compared to non-diabetics. Presence of diabetic neuropathy is an important predictor of the condition.