

ABSTRACT

A clinic-based case control study was carried out in a private diabetes care center at Yangon in 2009. The study was a prognostic study to identify the important predictors for the chronic complications of type 2 diabetes mellitus. Total study population consisted of 140 participants with 70 cases and 70 controls. Data was collected by face to face interview with pre-tested questionnaire, record reviews and physical measurements. Data analysis was first done with univariate analysis to explore the association between various predictors and outcome (presence or absence of chronic complications of type 2 diabetes mellitus). The data were then analyzed with multivariable logistic regression to develop final prediction model. All the predictors which were significant in the univariate analysis and other clinically relevant predictors were included in the full model and another three reduced models were developed by backward selection at 0.05 significance level, Akaike Information Criterion, backward selection at 0.05 significance level with the maintenance of the clinically important criteria. The performance of all models was compared by pseudo R square and the final model was selected. The eight predictors of the final prediction model were, did not practicing the active life style, presence of the days that exceed for the diet recommended for a diabetes patient within previous week, been recently smoked, duration of diabetes more than 5 years, presence of hypertension, higher waist to hip ratio, higher total cholesterol level, and higher HbA1c level. This study highlighted that lifestyle modifications (practicing active lifestyle, diet control, weight control and not been smoking) could lower the risk of chronic complications of type 2 diabetes mellitus. And the total cholesterol and HbA1c should be regularly monitored. Blood pressure should be controlled tightly by appropriate therapeutic measures so that the occurrence and worsening of the chronic complications could be mitigated.