ABSTRACT

Background

Diabetes mellitus (DM) has become a global burden with a worldwide prevalence of 382 million in 2013 and more than 592 million people are expected to have DM by 2035. Many studies and treatment guidelines have emphasized that the treatment of DM extends beyond glycaemic control. This includes lowering lipids, blood pressure, and weight control with diet and general increase in physical activity. Also prevention and treatment of complications if present to reduce morbidity and mortality in people living with DM.

This study determined the proportion of Type 2 DM patients reaching glycaemic target using HbA1c as gold standard and identified the proportion of patients reaching target blood pressure, blood lipid goals and related the presence of some complications to treatment goals attainment.

METHOD

This cross-sectional descriptive study involved three hundred (300) Type 2 diabetic patients consecutively recruited from the diabetics’ clinic of OAUTHC, Ile-ife from October 2012 to November 2013. Relevant clinical information and physical examination were carried out. Venous blood was collected to determine fasting plasma glucose, 2 hour postprandial glucose, glycated haemoglobin, total cholesterol, low density lipoprotein, high density lipoprotein and triglycerides. Urine was collected for albumin and proteinuria. Treatment goals were set using HbA1c < 7%, blood pressure <130/80mmHg, total cholesterol < 200mg/dl, triglycerides < 150mg/dl, LDL <100mg/dl and HDL >40mg/dl (1.1mmol/l) in males and >50mg/dl (1.3 mmol/l) in females.
RESULTS - A total of 300 patients with Type 2 Diabetes mellitus were recruited into the study. One hundred and six (35.3%) were males and 194 (64.7%) females. The mean age was 61.17 ± 10.5 years (62.0 ± 10.9 years for males and 60.7 ± 10.3 years for females). Majority of the patients (44%) were traders.

Of the 300 participants, 8.3% achieved the combined optimal treatment goals for HBA1c, blood pressure and lipids. Seventy (23.3%) achieved the HBA1c targets of < 7.0%, 45.0% attained the ADA blood pressure goal of ≤ 130/80 mmHg and 37.0% achieved the optimal lipid goal.

Bi-variate analysis showed statistically significant relationship between treatment targets attained and reduction in the frequency of diabetic retinopathy, neuropathy, nephropathy and peripheral vascular diseases (p < 0.001).

Logistic regression analysis showed that patients with short duration of DM, good compliance with medication, and 2 hours postprandial blood glucose of less than 10 mmol/l were more likely to attain HBA1c goal of < 7.0%.

CONCLUSIONS

The proportion of patients not attaining treatment goals was high and majority of these patients bore greater burden of chronic diabetic complications.

Adherence with medication, early institution of preventive therapy of the chronic complications, as well as adequate management of hypertension and dyslipidaemia should be paramount in the management of patients with type 2 diabetes.