Control of glycosylated hemoglobin (HBA1C) among type 2 diabetes mellitus patients attending an urban health clinic in Malaysia.

ABSTRACT

Diabetes mellitus is a public health problem and has become a concern to all levels of society. In Malaysia, the prevalence of diabetes mellitus had increased, from about 0.65% in early 1960s to 2 – 4% in 1980s and 14% in early 21st century. Studies had showed that glucose control is effective in preventing complications from diabetes mellitus. Level of glycosylated hemoglobin (HbA1c) is an accepted indicator of glycaemic control. A cross-sectional study was carried out to determine the level of control of HbA1c among 307 type 2 diabetes mellitus patients attending the health clinic in Bandar Tun Razak, Kuala Lumpur using validated structured questionnaires, while secondary data were obtained from patients' medical reports. Response rate for this study was 89%. Majority of type 2 diabetes mellitus patients attending the health clinic in Bandar Tun Razak were Malays (79.5%), women (61.9%) and married (77.2%), and with secondary education (49.5%). The mean age of respondents was 56.9 ± 9.5 years, median Body Mass Index (BMI) was 28.5 (IQR: 6.0) and median HbA1c was 7.4% (IQR: 2.7). About three quarter of the type 2 diabetes mellitus patients studied had poor controlled level of HbA1c ($\geq 6.5\%$). Age (p=0.047), blood pressure (systolic blood pressure p=0.049, and diastolic blood pressure p=0.011) and low density lipid level (p=0.039) had significant relationship with the level of HbA1c. Other risk factors studied had no significant relationship with the level of HbA1c. The study concluded that, there was poor glycaemic control among type 2 diabetes mellitus studied, this exposed them to complications of diabetes mellitus. It is recommended that health education activities, counselling and prevention activities are intensified and targeted to this group of patients.

Keyword: Glycosylated hemoglobin (HbA1c); Type 2 diabetes mellitus; Urban health clinic; Malaysia.