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Relationship between Glycaemic Control, Duration of Diabetes and Types of Medications Used to Treat Patients with Type 2 Diabetes, Attending the Diabetes Centre, Teaching Hospital Jaffna

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Background: Glycaemic control is based on the serum glucose level recommended by the WHO and helps diabetics to prevent diabetic-related complications. Glycaemic control may vary with different medications and the duration of diabetes.

Objectives: To find the relationship between glycaemic control, the duration of diabetes and the types of medications used to treat patients with type 2 diabetes, attending the Diabetes Centre, Teaching Hospital Jaffna

Methods: This was a descriptive cross-sectional study and a systematic random sampling method was used to recruit 166 patients with type 2 diabetes. Data extraction sheet was used to collect information including HbA1c values which were obtained from the patient's report. Descriptive statistics and Chi-squared test were carried out using SPSS.

Results: Majority of the patients were females (60.8%) and half of the participants (50%) were >60 years. Duration of diabetes was >10 years of 32.5% patients and equal number (n=56) had the duration as <5 and 5-10 years. Majority of the patients (92.2%) consumed oral hypoglycaemic agents while 5.4% of patients had insulin therapy. The mean(\pm SD) HbA1c of the study population was 6.7 ± 1.82 mmol/L with 46.4% having poorly controlled diabetes (HbA1c>7%). Among the poorly controlled patients, majority (41.6%) had diabetes for >10 years while 46.1% had good control with the duration of <5 years. Majority (88.9%) of the patients with insulin therapy had poor diabetes control (HbA1c>7%). More than half of the patients (56.9%) who consumed oral hypoglycaemic agents had good glycaemic control (HbA1c<7%). Glycaemic control was significantly associated with both duration of diabetes ($p<0.001$) and the type of treatment ($p=0.014$).

Conclusions: Less than 50% of the diabetics had poor glycaemic control. Both the duration of diabetes and type of treatments influence the glycaemic status of diabetic patients.

Keyword: Diabetes Mellitus, Duration of diabetes, Glycaemic control, Type of treatment