PREVALENCE OF DIABETES MELLITUS AMONG PATIENTS REPORTING IN MEDICAL AND DENTAL OUTDOOR DEPARTMENTS

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ABSTRACT:
Diabetes mellitus (DM), commonly known as diabetes, is a group of metabolic disorders characterized by a high blood sugar level over a prolonged period. A total of 123 patients were included in this cross-sectional study. Brief introduction i.e. name, age, gender, nature of disease, duration of disease and different questions were asked and recorded on a predefined proforma after the consent. All the data was then entered and analyzed on SPSS Ver. 22.0. The mean age of the patients was 45.33±5.45 years. There were 78 males and 45 females. The lab. data of all the patients was analyzed. There were 43 patients including 31 males and 12 females who were suffering from diabetes. The mean duration of diabetes was 5.63±3.12 years.

Keywords: Medical, Dental, Outdoor Patients
INTRODUCTION:
Diabetes mellitus (DM), commonly known as diabetes, is a group of metabolic disorders characterized by a high blood sugar level over a prolonged period of time. Symptoms often include frequent urination, increased thirst, and increased appetite. If left untreated, diabetes can cause many complications. Acute complications can include diabetic ketoacidosis, hyperosmolar hyperglycemic state, or death. Serious long-term complications include cardiovascular disease, stroke, chronic kidney disease, foot ulcers, damage to the nerves, damage to the eyes and cognitive impairment. Diabetes is due to either the pancreas not producing enough insulin, or the cells of the body not responding properly to the insulin produced. The global economic cost of diabetes related health expenditure in 2017 was estimated at US$727 billion. In the United States, diabetes cost nearly US$327 billion in 2017. Average medical expenditures among people with diabetes are about 2.3 times higher.

There are three main types of diabetes mellitus i.e. Type 1 diabetes results from the pancreas's failure to produce enough insulin due to loss of beta cells. This form was previously referred to as "insulin-dependent diabetes mellitus" (IDDM) or "juvenile diabetes". The loss of beta cells is caused by an autoimmune response. The cause of this autoimmune response is unknown, type 2 diabetes begins with insulin resistance, a condition in which cells fail to respond to insulin properly. As the disease progresses, a lack of insulin may also develop. This form was previously referred to as "non insulin-dependent diabetes mellitus" (NIDDM) or "adult-onset diabetes". The most common cause is a combination of excessive body weight and insufficient exercise and Gestational diabetes is the third main form, and occurs when pregnant women without a previous
history of diabetes develop high blood sugar levels.

Type 1 diabetes must be managed with insulin injections. Prevention and treatment of type 2 diabetes involves maintaining a healthy diet, regular physical exercise, a normal body weight, and avoiding use of tobacco. Type 2 diabetes may be treated with medications such as insulin sensitizers with or without insulin. Control of blood pressure and maintaining proper foot and eye care are important for people with the disease. Insulin and some oral medications can cause low blood sugar. Weight loss surgery in those with obesity is sometimes an effective measure in those with type 2 diabetes. Gestational diabetes usually resolves after the birth of the baby. As of 2019, an estimated 463 million people had diabetes worldwide (8.8% of the adult population), with type 2 diabetes making up about 90% of the cases. Rates are similar in women and men. Trends suggest that rates will continue to rise. Diabetes at least doubles a person's risk of early death. In 2019, diabetes resulted in approximately 4.2 million deaths. It is the 7th leading cause of death globally (1-3). The objective of this study was to study the prevalence of diabetes mellitus among the patients presenting in different medical and dental outdoor departments.

Material of Methods:
A total of 123 patients were included in this cross-sectional study. Brief introduction i.e. name, age, gender, nature of disease, duration of disease and different questions were asked and recorded on a predefined proforma after the consent. All the data was then entered and analyzed on SPSS Ver. 22.0.

RESULTS:
The mean age of the patients was 45.33± 5.45 years. There were 78 males and 45 females. The lab. data of all the patients was analyzed. There were 43 patients including 31 males and 12 females who were
suffering from diabetes. The mean duration of diabetes was 5.63±3.12 years.

**DISCUSSION:**

Diabetes mellitus is characterized by recurrent or persistent high blood sugar, and is diagnosed by demonstrating any one of these, Fasting plasma glucose level ≥ 7.0 mmol/L (126 mg/dL), Plasma glucose ≥ 11.1 mmol/L (200 mg/dL) two hours after a 75 gram oral glucose load as in a glucose tolerance test (OGTT), symptoms of high blood sugar and casual plasma glucose ≥ 11.1 mmol/L (200 mg/dL) or Glycated hemoglobin (HbA1C) ≥ 48 mmol/mol (≥ 6.5 DCCT %). A positive result, in the absence of unequivocal high blood sugar, should be confirmed by a repeat of any of the above methods on a different day. It is preferable to measure a fasting glucose level because of the ease of measurement and the considerable time commitment of formal glucose tolerance testing, which takes two hours to complete and offers no prognostic advantage over the fasting test. According to the current definition, two fasting glucose measurements above 7.0 mmol/L (126 mg/dL) is considered diagnostic for diabetes mellitus.

Per the WHO, people with fasting glucose levels from 6.1 to 6.9 mmol/L (110 to 125 mg/dL) are considered to have impaired fasting glucose. People with plasma glucose at or above 7.8 mmol/L (140 mg/dL), but not over 11.1 mmol/L (200 mg/dL), two hours after a 75 gram oral glucose load are considered to have impaired glucose tolerance. Of these two prediabetic states, the latter in particular is a major risk factor for progression to full-blown diabetes mellitus, as well as cardiovascular disease. The American Diabetes Association (ADA) since 2003 uses a slightly different range for impaired fasting glucose of 5.6 to 6.9 mmol/L (100 to 125 mg/dL) (4-6).
REFERENCES:


