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The Anthropological Prevalence of People Living with Type 2 Diabetes Mellitus Visiting the Maitama District Hospital Abuja(A Retrospective Study)

¹Abue AD and ²Nvene NJ
¹Department of Anatomical Sciences ,University of Abuja,Nigeria.
²Maitama District Hospital, Abuja,Nigeria.

Corresponding Author: Abue AD E-mail: andrew.abue@uniabuja.edu.ng

ABSTRACT

Type 2 diabetes (T2D), formerly known as adult-onset diabetes, is a form of diabetes that is characterized by high blood sugar, insulin resistance, and relative lack of insulin. Common symptoms include increased thirst, frequent urination, and unexplained weight loss.Symptoms may also include increased hunger, feeling tired, and sores that do not heal. The aim of the research is to have a Knowledge of the number of people that lived with Diabetes Mellitus while attending Maitama District hospital from June 2007 and June 2010. This research work was an observatory using retrospective design in which all patients charts who sought services at the Maitama District Hospital in Abuja Nigeria between June 2007 to June 2010 were seen. A week was dedicated to view the hospital files of patients diagnosed of Diabetes Mellitus in the hospital after signing a confidentiality agreement with the hospital Management. The anthropological Prevalence rate of type 2 DM visiting the Maitama District Hospital Abuja from 1st june, 2007 to June 2010 was found to be approximately 1.6% as shown in table below. When analysed along gender line, the prevalence was found to be 1.2% for females and 2.6% for Males. Anthropologically, one impediment to our understanding of type 2 DM had been the limited scope of our studies. With causes rooting from man's prehistory and evolution to endocrine function and subcellular interactions to behavioral psychology. Type2 DM does not easily yield to the fine, precise dissecting lens of modern medical science. The more encompassing biocultural view of medical anthropology provides additional perspective that is looking at the environmental, Cultural and biological dimensions gives us a clearer understanding of this disease which ultimately helps us solve the problem of this disease.

Keywords-Anthropological, Prevalence, Type 2 Diabetes Mellitus, Maitama

INTRODUCTION

Type 2 diabetes (T2D), formerly known as adult-onset diabetes, is a form of diabetes that is characterized by high blood sugar, insulin resistance, and relative lack of insulin. Common symptoms include increased thirst, frequent urination, and unexplained weight loss. Symptoms may also include increased hunger, feeling tired, and sores that do not heal. Often symptoms come on slowly. Long-term complications from high blood sugar include heart disease, strokes, diabetic retinopathy which can result in blindness, kidney failure, and poor blood flow in the limbs which may lead to amputations. The sudden onset of hyperosmolar hyperglycemic state may occur; however, ketoacidosis is uncommon.^[1,2,3,4,5,6]

After digestion glucose passes into the blood stream, where it is used by cells for growth and energy for glucose to get into cells. Insulin must be present. Insulin is a hormone produced by the pancreases, a large gland behind the stomach.^(7,8,9,10)

When people eat, the pancreases automatically produce the right amount of insulin to move glucose from blood into the cells. In people with diabetes however, the pancreas either produces little or no insulin or the cells do not respond appropriately to the insulin that is produced. Thus the body loses it main source of fuel even though the body contains large amounts of glucose.

Definition by World Health Organization (WHO), 1999. Diabetes Mellitus as a "metabolic disorder of multiple etiology, characterized by chronic hyperglycemia, with disturbances of carbohydrate, fats and protein metabolism resulting from defect insulin secretion, insulin action or both.

The effect of diabetes mellitus include long term damage dysfunction and failure of various organ"

Thus, the metabolic abnormalities of diabetes result from inadequate insulin action or a combination of both. The increasing prevalence of Diabetes Mellitus, complications as a cause of early morbidity burden on health care system make diabetes a priority health concern worldwide.

Diabetes mellitus is one of the leading noncommunicable diseases affecting millions of people worldwide. It is estimated that at least 171 million people worldwide have diabetes; and this figure is expected to double by the year 2030. About 3.2 million deaths are attributable to diabetes annually; at a rate of six deaths every minute. Although Nigeria is not one of the top ten countries in numbers of sufferers, diabetes incidence and prevalence in Nigeria is increasing, at the least, at the same rate if not more than the rate of increase in western countries. Nigerian institutions do not keep good statistical records, consequently, most of the data from World Health Organizations and other international health indicator monitors rely on extrapolation of data from other countries to estimate situation for Nigeria. $^{[9,10,11,12,13,14]}$. The aim of this study is to have a Knowledge of the number of people that lived with Diabetes Mellitus while attending Maitama District hospital from June 2007 and June 2010.

MATERIALS AND METHODS

This research work was an observatory using retrospective design in which all patients charts who sought services at the Maitama District Hospital in Abuja Nigeria between June 2007 to June 2010 were seen. A week was dedicated to view the hospital files of patients diagnosed of Diabetes Mellitus in the hospital after signing a confidentiality agreement with the hospital Management.

RESULTS

The anthropological Prevalence rate of type 2 DM visiting the Maitama District Hospital Abuja from 1st,2007 to June 2010 was found to be approximately1.6% as shown in table below. When analysed along gender line, the prevalence was found to be 1.2% for females and 2.6% for Males. When corrected with 100,000 patients per year of attendance, to allow for Comparison within the data collected and other studies, ie, if 100,00 patients attend the hospital within a year, 1680 will be diagnosed Type 2 DM.If 100,000 females attend the hospital for one year 1242 of them will be diagnosed with type 2 DM, while the males will have2621.

Table I: Shows Distribution of Patient with Diabetes Mellitus at Maitama District Abuja from June 2007 to June2010

	Males	Females	Total Patients
Patients	1819	4996	6819
Diabetes	143	186	329
AverageAge	65	38	49
Prevalence	2.6%	1.2%	1.6%
Prevalence			
100,000/yr	2621	1242	1680

6819 patient charts were recorded of which 329 had Diabetes Mellitus in the population as their primary diabetes and this is the population under study .For each chart that had a primary diagnosis of diabetes mellitus; the patient age and gender were recorded.

DISCUSSION

Studies that were conducted over the four decades from 1960 to 2000 showed generally low prevalence rates for diabetes in Nigeria. Two studies that were conducted in 1963 and 1971 reported prevalence of less than 1% for diabetes in Nigeria. The prevalence was still low at 0.8% to 2.8% in several studies that were conducted from 1988 to 1998 with most patients having non-insulin dependent (type 2) diabetes. These studies were limited to particular population groups in Nigeria except one which was part of a national survey that assessed the prevalence of non-communicable diseases in the entire Nigerian population. In the past, diabetes was largely categorized as juvenile onset (insulin dependent) and maturity onset (non-insulin dependent)

Average age of all patients, all female patients and male patients with diabetes mellitus diagnosis was calculated using simple arithmetic method. Then standard statistical prevalence method of calculation was used to calculate the prevalence.

reported in the Nigerian. The rarity of juvenile onset (type 1) diabetes is underscored by a study that was done in 1990 where only 6% of 756 registered diabetes patients were aged 15 to 30 years at diagnosis. A study that assessed patients' knowledge and self care practices of diabetes found that 78% of the Study population ascribed diabetes to poisoning and that about 70% of patients checked glycaemic control by tasting urine or passing urine on the ground and observing for ants.

Treatment of DM in Nigeria has always included the administration of insulin and oral hypoglycaemic agents in conjunction with dietary counselling and life style modification. Bovine and porcine insulin were the predominant forms of insulin used in the past.^(15,16,17)

For the diagnosis of DM the World Health Organization (WHO) 1999 criteria apply and the commonly used test is the fasting plasma glucose which is more pragmatically poised in the diagnosis of DM than the oral glucose tolerance test that is not readily reproducible. The use of glycosylated haemoglobin test in the diagnosis of DM was recommended by the WHO in 2011 and a level of $\geq 6.5\%$ (≥ 48 mmol/mol) was taken as a cut-off for diagnosing type 2 diabetes in nonpregnant adults. Using HbA1c for diagnosis requires the International Federation of Clinical Chemistry standardised assays for its measurement to ensure the results produced using different assays are equivalent and reliable. In Nigeria, glycated haemoglobin levels are more often than not determined by point-of-care tests which are not standardized for use in diagnosing diabetes.^(5,6,10)

Anthropologically, one impediment to our understanding of type 2 DM had been the limited scope of our studies. With causes rooting from man's prehistory and evolution to endocrine function and subcellular interactions to behavioral psychology. Type 2 DM does not easily yield to the fine, precise dissecting lens of modern medical science. The more encompassing biocultural view of medical anthropology provides additional perspective that is looking at the environmental, Cultural and biological dimensions gives us a clearer understanding of this disease which ultimately helps us solve the problem of this disease.

CONCLUSION

In Conclusion ,type 2 DM records should be electronically stored to enable relevant agencies and government plan effectively towards mitigating the impact of diseases like type 2 DM to the economy of Nigeria as well as creating awareness for people to change their lifestyle to help reduce the burden of the disease in Nigeria.

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