DECADE OF BIRTH AND WAIST CIRCUMFERENCE INFLUENCE AGE AT DIAGNOSIS OF TYPE 2 DIABETES MELLITUS IN NIGERIA
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Background:
The prevalence of Diabetes Mellitus (DM) is increasing globally. This has been attributed to increase in the prevalence of obesity, sedentary lifestyle, and westernization of our community. The mean age at diagnosis of type 2 diabetes mellitus (T2DM) has been reported to be decreasing and this change may be attributed to an earlier onset of T2DM or earlier detection or a combination of both. There is also a concern that T2DM may be occurring at a greater frequency in adolescents and in younger adults. In Nigeria, there is scant data on the trend of the age at diagnosis of our T2DM patients.

Aims and Objectives:
To determine relationship between mean age at diagnosis, decade of birth and correlation with anthropometric indices in T2DM subjects in Nigeria.

Methodology:
This study was a cross sectional study and the data was from the diabetes clinic register of patients attending the Lagos University Teaching Hospital. Information such as; date of birth, sex, year of diagnosis, BMI (Body Mass Index), waist circumference were extracted. Data collected was analysed using SPSS version 17.

Results:
Data of 396 subjects were analysed of these, 243 (61.4%) were females, 153 (38.6%) males. Mean age of the subjects was 59.95+12.02 years. Mean age at diagnosis of the subjects was 50.84+12.09 years. Minimum age at diagnosis was 17 years, maximum age was 82 years. Mean age at diagnosis for females was 50.69+12.05 years, while that of males was 51+12.16 years (p=0.762). 78 (19.7%) subjects were diagnosed at the age of <40 years. Mean age at diagnosis gradually decreased from 72.33+12.08 years in subjects born in the 1920's to 26.20+5.26 years in subjects born in the 1980s. There was a weak inverse relationship between age at diagnosis and BMI(r=-0.019, p=0.709). There was a similar though stronger inverse relationship between age at diagnosis and waist circumference (r=-0.1, p=0.047). Over half (57.4%) of the subjects were diagnosed between 2001 and 2010.

Conclusion: Age at diagnosis of T2DM is reducing in Nigeria especially in the last 2 decades. These findings may be due to increasing westernization in the last 2 decades, increasing obesity or increased screening of the population, which may be attributed to increased awareness of the disease by both healthcare professionals and patients. Waist circumference seems to strongly predict earlier age at DM diagnosis than the BMI.

Key Words: T2DM, Decades of birth, Waist Circumference, BMI