

PREVALENCE OF DIABETES MELLITUS AND IMPAIRED FASTING GLUCOSE IN ADULT POPULATION AT 3 VILLAGES; AL-SWALEM SOUTH, AL-SWALEM NORTH, AND ASHLEMAAT AL BEHIERA GOVERNORATE

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Introduction

Diabetes Mellites (DM) is a frequent chronic disease that is recognized by a triad of symptoms caused by chronic hyperglycemia (polydipsia, polyuria, polyphagia and frequently associated with weight loss) due to metabolic dysregulation and elevated blood glucose level. Worldwide, DM continues to be a significant social, economic, and health system burden. In 2045, the prevalence of prediabetes is expected to reach an epidemic level of 8.6%, of which most of those affected coming from low- or middle-income nations. In order to promote DM prevention and to encourage changes in treatment for all patients with diabetes, it is crucial to provide periodic surveillances and future predictions for diabetes. Evidence showed that many individuals in underdeveloped nations, like Egypt, are afflicted with DM but they have never been diagnosed.

Aim of the work

To determine the prevalence of diagnosed and undiagnosed DM and impaired fasting glucose in a cohort of adult Egyptian population living at 3 Villages; Al-Swalem South, Al-Swalem north, and Ashlema at Al Behiera governorate over 3 months March, April, and May 2020.

Patients and Methods

Across-sectional analytical design was used to carry out this research to study the prevalence of diabetes, and IFG among a cohort of adult Egyptian populations. This study was conducted in 3 Villages: Al-Swalem South, Al-Swalem north, and Ashlema at Al Behiera governorates over 3 months on March, April, and May 2020. A total of 2000 adult inhabitants from these areas were included in the current work. All participants were selected randomly by choosing nearly one house from 10 houses of the whole village. About 10% of the population living in this area was chosen for the study. The subjects of the study covered the various age groups who are ≥20 years of age regardless of he or she had diabetes.

Results

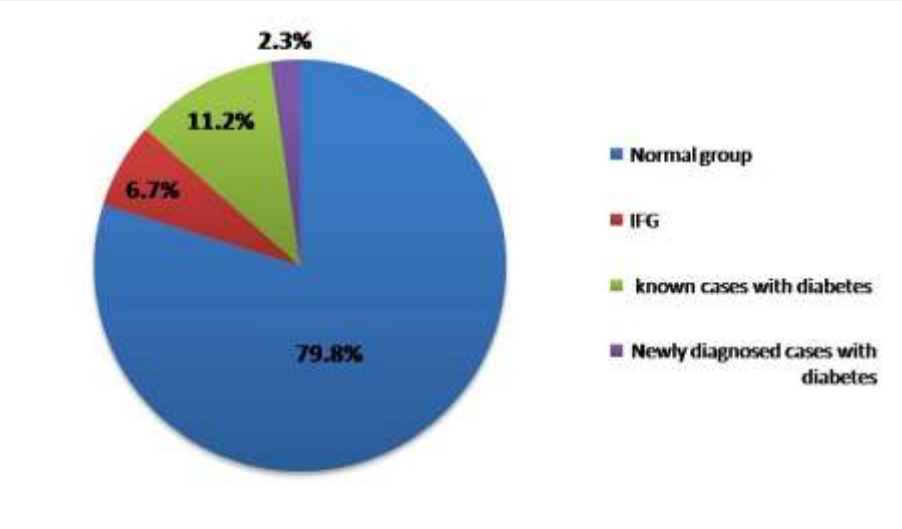


Figure: Distribution of the studied population according to FPG (n=2000).

Table : Mean FPG levels among the studied population

FBG (mg/dl)	No.	%	Min. – Max.	Mean ± SD.	Median (IQR)
Normal group	1596	79.8	66.0 – 99.0	85.8 ± 8.17	87.0 (79.0–93.0)
IFG	134	6.7	100.0 – 125.0	109.46 ± 6.95	108.0 (104.0–114.0)
Known cases with DM	225	11.2	79.0 – 410.0	220.55 ± 71.86	196.0 (169.50–264.0)
Newly diagnosed cases with DM	45	2.3	144.0 – 420.0	223.91 ± 74.85	190.0 (171.5–267.5)
Total	2000	100.0	66.0 – 420.0	105.95 ± 53.95	89.0 (81.0 – 98.0)

Conclusion

Our study showed a high prevalence of IFG and DM among adult Egyptian population with a proportion of IFG and DM remains undiagnosed. People aged above 80 years are mostly affected by diabetes. Age, hypertension, and obesity were the main risk factors for DM and IFG.