(REVIEW ARTICLE)

Diagnosing test of pre-diabetes

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Abstract

Prediabetes means that blood sugar level is higher than normal but not yet high enough to be type 2 diabetes. Essential is lifestyle changes as people with prediabetes are predisposed in developing type 2 diabetes, the same lifestyle changes that can help prevent progression to diabetes in adults might also help blood sugar levels back to normal. the long term effect will development of diabetes that has demolishing effect on heart, blood vessel and kidney. Therefore, this short paper unveils likely diagnosing test of prediabetes.

Keywords: Diagnosis; Prediabetes; Blood Sugar; Diabetes

1. Introduction

Prediabetes" is an empirical and easy term that defines and refers to impaired fasting glucose (IFG), impaired glucose tolerance (IGT) or a glycated hemoglobin (A1C) of 6.0% to 6.4%, that is suffice to place an iindividuals at high risk of developing diabetes and its complications, if not diagnosed and managed on time. Simply to say, Blood glucose assay exceeding normal but not enough to overcome diabetes or less than 200mg/dl, the referencing value for diagnosing type 2 diabetes that increases risk heart disease and stroke [1].

For the abatement of risk timely finding or diagnosis of this prediabetes condition is essential this review accrue the details of methodology implemented for in identification or diagnosis of prediabetes. So that the preoccupied development of overt diabetes of 10 year be prolonged.

However, modest weight loss and moderate physical activity can help people with prediabetes delay or prevent type 2 diabetes.

Aim of test

Blood test give indication of having prediabetes or diabetes because in prediabetes stage there Is normally no symptoms, health post or in hospital or commercial health care provider office draws blood and dispatch the sample to a laboratory for measurement of blood sugar analysis where precisely accurate test need to be ensured. Finger stick device technique is also available bit not absolutely reliable for diagnosis purpose but give an quick idea of assay of blood sugar level. Regular scheduling blood sugar measurement to a susceptible individual is necessary to identify and prevent from complications that corroborates to discover and manage prediabetes that can be helpful for delaying or developing type 2 diabetes [2, 3].

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2.   Methods for diagnosis

Any one of following tests methods are used for diagnosis of prediabetes

- HbA1C test [4].
- Fasting plasma glucose Assay or impaired Fasting Glucose [IFG].
- Oral Glucose tolerance test or Impaired Glucose tolerance test [IGT].

2.1   A1C Test

Prediabetes and also diabetes can be detected but is not validated or recommended for diagnosis of type or gestational diabetes, it is a type of test whose report doesn't varies on daily basis means there is no fluctuation on day wise but reflect 3 over the past 3months average of an individual's blood glucose level and is more convenient because it doesn't require any strict restriction for test for example fasting as it is the requirement for traditional glucose test and can be tested at any moment or time of the day.

2.2   Reporting of A1C

The A1C level is reported , higher percentage of A1C means higher is the glucose level in the blood.

Normal level is less the 5.7%, however this condition even be at risk for diabetes considering presence of other risk factors.

Prediabetes diagnosing report is as 5.7%-6.4% [5].

A1C level above 6.0 % are at very high risk to develop diabetes and 6.5 or above means diabetes.

1 year is the retesting time for one diagnosed with prediabetes?

2.3   Impaired Fasting plasma Glucose test

This test examines fasting blood glucose levels. Fasting here means not having not having anything to eat or drink at least (except water) upto 8 hours preceding the test and usually recommended to perform in the morning before taking any recipe.

126 mg/dl or greater than the blood glucose concentration is the margin point for diagnosis of diabetes in fasting condition while 100mg/dl to 125 mg/dl is the diagnosing reference range for prediabetes [6].

3.   Results and discussion

3.1   Fasting Plasma Glucose (FPG)

- Normal: less than 100 mg/dl
- Prediabetes: 100 mg/dl to 125 mg/dl
- Diabetes: 126 mg/dl or higher

3.2   Oral Glucose Tolerance Test (also called the OGTT)

This is a methodology of testing the processing mechanism of blood glucose after two hour of eating normal meal or 75gm of glucose or any special sweet drink, in this test diabetes is diagnosed if blood glucose concentration greater or equal to 200mg/dl and prediabetes and considered range of prediabetes is 140 mg/dl to 199mg/dl [7].

3.2.1   Oral Glucose Tolerance Test (OGTT)

- Normal: less than 140 mg/dl
- Prediabetes: 140 mg/dl to 199 mg/dl
- Diabetes: 200 mg/dl or higher

4. Conclusion

To know diagnosing criteria and test is necessary and that's good news, as processing and progression from prediabetes to type 2 diabetes can be interrupted by eating healthy foods, incorporating and scheduling physical activity and maintaining a healthy weight (means weight as per the height which is suggested by the guideline of BMI (Basal metabolic index).

Compliance with ethical standards

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