



DIABETES AND ITS TYPES

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Abstract

first WHO global report on diabetes was launched on World Health Day, 7th April 2016, which was dedicated to diabetes (1). Right from ancient times, diabetes has been seen as a serious illness. In recent decades, human health and development have been increasingly affected by the rising number of people with diabetes.

Diabetes, cardiovascular disease, cancer, and chronic respiratory diseases have been targeted in the political declaration on the prevention and control of non-communicable diseases in the UN high-level political meeting 2011.

In 2011, World Health Organization members kept the global framework and set the nine targets that were to be reached by 2025. The first WHO global report on diabetes was launched on World Health Day, 7th April 2016, which was dedicated to diabetes (1). Right from ancient times, diabetes has been seen as a serious illness. In recent decades, human health and development have been increasingly affected by the rising number of people with diabetes.

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In 2011 World Health Organization members kept the global framework and set the nine targets, which were to be reached by 2025. (2)

Keywords:

Diabetes mellitus, hyperglycemia, insulin resistance, pancreatic beta cells, type 1 diabetes, type 2 diabetes, gestational diabetes, monogenic diabetes, metabolic disorder, autoimmune disease, glucose metabolism, endocrine disorders, chronic disease, genetic factors, and lifestyle management.

INTRODUCTION

Diabetes is a metabolic disease characterized by high blood sugar. This high blood sugar happens because of the defect in the insulin secretion or insulin action or both. It causes long-term damage, organ failure, or dysfunction in various organs, especially kidneys, nervous systems, hearts, etc. (3)

TYPES OF DIABETES:

According to the American Diabetes Association, diabetes can be divided into four main categories.

1: TYPE DIABETES

This type is usually caused by the destruction of insulin-producing beta cells in the islets of the pancreas mediated by an autoimmune mechanism. Active T cells mistakenly destroy healthy beta cells. More than 95% of type 1 diabetes is caused by autoimmunity. [4]

TYPE 2 DIABETES:

It is difficult to distinguish between these two types of diabetes (type 1 & type 2) in terms of characteristics and pathogenesis, as both of them share the lack of beta cells, and there is a hypothesis that the first type will eventually lead to insulin resistance similar to the second type of diabetes.

Diabetes's second effect is on people in the advanced stage, and it appears at a younger age because genes play a role in the emergence of diabetes's second effect.

GESTATIONAL DIABETES MELLITUS:

It can be defined as any degree of hyperinsulinemia at the beginning of or during pregnancy.

OTHER TYPES OF DIABETES

There are various other types, which are caused by various reasons, such as monogenic diabetes syndrome, exogenous pancreatic diseases [such as cystic fibrosis], diabetes caused by drugs or chemicals, etc.

MONOGENETIC DIABETES SYNDROME:

This is one of the inherited forms of diabetes caused by mutations in the genes, usually of the following types:

1: MODY (mutation-onset diabetes of the young) occurs in young age or early adulthood, often with family history.

2: NEONATAL DIABETES: Present within the first six months of life.

3: ENDOCRINE DISORDER: DIABETES: Many hormones, such as growth hormone, control glycogen, etc., and resist the action of insulin. Also, the diseases related to excessive secretion of these hormones are also enhancing the cause of diabetes. [5]

CONCLUSION:

Diabetes occurs as a result of a lack of insulin secretion from pancreatic beta cells, insulin resistance in tissue, and an insufficient response to insulin secretion, which in turn leads to the uncontrolled increase of blood sugar.

However, type 2 diabetes can be controlled by the help of controlling dietary supplements without packing medications.

Diabetes mellitus, hyperglycemia, insulin resistance, pancreatic beta cells, type 1 diabetes, type 2 diabetes, gestational diabetes, monogenic diabetes, metabolic disorder, autoimmune disease, glucose metabolism, endocrine disorders, chronic disease, genetic factors, and lifestyle management.

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