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EXPERT OPINION
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Renaming Diabetes Types

ABSTRACT

Type 1 and type 2 diabetes can be renamed with more descriptive and clinically useful labels. Type 2 diabetes can be renamed as a Lifestyle Diabetes reflecting the renewed emphasis on healthy nutrition and a physically active lifestyle. As type 1 diabetes mostly affects children and imposes a unique set of requirements, it can be referred to as Special Diabetes. Children can connect with this name, while caregivers will be reminded of the quite different needs of these patients. Additionally, new simplified names are suggested for other diabetes subtypes and related endocrine disorders. Gestational diabetes mellitus can be renamed with a less stigmatizing label: pregnancy hyperglycemia, reflecting its transient nature as opposed to a lifelong diagnosis. Monogenic diabetes of the young can be renamed as monogenic diabetes and latent autoimmune diabetes of adults as special antibody diabetes. Diabetes insipidus, which does not share pathophysiology with diabetes mellitus, can be renamed as Renal Insipidus and Pituitary Insipidus, based on the etiology. Lastly, polycystic ovarian syndrome, which does not require polycystic ovaries for diagnosis, can be renamed as Androgenic Syndrome reflecting hyperandrogenism as its main clinical and diagnostic feature.

Keywords: Diabetes insipidus, gestational diabetes mellitus, nomenclature, polycystic ovarian syndrome, type 2 diabetes, type 1 diabetes

Introduction

Current names of types of diabetes are confusing, cryptic, and harmful. Patients have suffered and died due to the confusion caused by these misleading labels.[1] Names such as "Type 1" and "Type 2" are cryptic as they do not convey meaning. Since the last revision in diabetes nomenclature in 1997, we have advanced considerably in our knowledge with over 67 000 research articles on diabetes.[2]

Calls to rename the subtypes of diabetes have been made previously. However, the suggested names were complex and cumbersome. In 2013, a proposal was made to rename type 1 diabetes as "autoimmune beta-cell apoptosis diabetes" and type 2 diabetes as "insulin-resistant diabetes."[3] It is likely that the latter would make patients with type 2 diabetes even more reluctant to start insulin. Not surprisingly, these unwieldy names did not gain acceptance. Another proposal from an academic clinician suggested the name "idiopathic hyperglycemia" for type 2 diabetes.[4] However, the term "diabetes" is now well-entrenched in research and lay public psyche, and the label "idiopathic" does not do justice to recent advances in our understanding of diabetes pathophysiology.

The rationale for renaming diabetes types is for patients' safety. Inappropriate and cryptic disease names have led to confusion, medical errors, and avoidable deaths.[1] Tragic and painful human suffering may be preventable through more accurate names that match underlying conditions. There are risks associated with any change in nomenclature including confusion, resistance, and reluctance. During the initial period, both old and new terminologies should be used concurrently.

A pragmatic approach to renaming the subtypes of diabetes is proposed in this commentary. The suggested names are brief, descriptive, and serve a useful purpose.

Lifestyle Diabetes: a New Name for Type 2 Diabetes

Type 2 diabetes can be renamed as Lifestyle Diabetes. This will reinforce the key message for diabetes prevention and treatment: aim for healthful nutrition and an active lifestyle. Blood pressure control is perhaps more important for patient-oriented outcomes than glucose control in diabetes care.[5] While many individuals struggle with structural barriers such as poverty,

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unsafe neighborhoods, and psychosocial stress, others have adjusted their lifestyles despite these challenges. A cryptic name such as "type 2" does not aid our global efforts to help the 462 million people affected.[6] Experts have repeatedly called for changing people's lifestyles as a fundamental response to the diabetes pandemic.[7,8]

While there seems to be a genetic component to the risk of developing type 2 diabetes, it appears to be "relatively small."[9] Some of the apparent familial clustering can be explained by epigenetic effects and shared family environments. In terms of predicting diabetes, traditional risk factors such as age and body mass index consistently outperform genetic markers. Knowledge of gene variants associated with diabetes does not improve prediction based on traditional risk factors. From a clinical perspective, genetic testing "cannot be used as predicting tools for T2D."[10] In other words, type 2 diabetes is primarily a lifestyle disease.

Stigmatizing patients is not useful or ethical, and yet, at the same time, a responsible and pragmatic approach is needed to curb the tsunami of type 2 diabetes. It can also be argued that the use of cryptic labels to hide the role of personal choice in obesogenic diets and sedentariness is neither useful nor ethical. Indeed, a holistic approach to diabetes centers on positive psychology in which future goals about lifestyle change are visualized and clearly stated.[11] The new name lifestyle diabetes can return the focus from medications to nutrition, exercise, and mindfulness.

Special Diabetes: a New Name for Type 1 Diabetes

Type 1 diabetes occurs more commonly in children with a peak incidence around 10-14 years.[12] As its etiological trigger remains unknown, a special name is needed. Such a name should click with children while highlighting its unique requirements such as mandatory insulin and raised clinical vigilance. The name Special Diabetes is apt. It is simple and relatable and connects with children. It has connotations of requiring meticulous clinical attention while making the affected children feel unique and extraordinary.

Pregnancy Hyperglycemia: a New Name for Gestational Diabetes Mellitus

An appealing argument to rename gestational diabetes mellitus (GDM) has been made previously.[13] It is worth noting that the risk of type 2 diabetes after GDM varies from 3% to 70%.[14] Thus, not all women with GDM progress to overt diabetes, and an individualized approach to follow-up and screening has been recommended based on risk factors such as obesity.[14] The label of diabetes can be emotionally traumatic and stigmatizing to young women who may never develop diabetes later on. A name that reflects the transient nature of GDM is more suitable in this context. Pregnancy Hyperglycemia is easier to understand and relate to while underscoring the need to tightly control blood glucose during the antenatal period.

MAIN POINTS

- The labels type 1 and type 2 are cryptic, confusing, and harmful.
- A new name, lifestyle diabetes, is suggested for type 2 diabetes.
- Type 1 diabetes can be renamed as special diabetes.
- Gestational diabetes mellitus can be renamed as pregnancy hyperglycemia.
- The term "diabetes" should be removed from diabetes insipidus.

Table 1. Suggested New Names for Types of Diabetes and Other Endocrine Disorders

Existing Name	New Name
Type 2 diabetes	Lifestyle diabetes
Insulin resistance subtype	Lifestyle diabetes
Insulin deficiency subtype	Internal diabetes
Type 1 diabetes	Special diabetes
Autoimmune	Special autoimmune diabetes
Idiopathic	Special idiopathic diabetes
LADA	Special antibody diabetes
MODY	Monogenic diabetes
Gestational diabetes	Pregnancy hyperglycemia
Diabetes insipidus	Renal insipidus
	Pituitary insipidus
PCOS	Androgenic syndrome

MODY, monogenic diabetes of the young; LADA, latent autoimmune diabetes of adults; PCOS, polycystic ovarian syndrome.

Other Related Endocrine Disorders

A few other endocrine disorders have names that are confusing or do not reflect our updated understanding of their pathophysiology. Simpler and more suitable names are suggested in Table 1. Diabetes insipidus (DI), which does not share pathophysiology with diabetes mellitus, needs to be urgently renamed to avoid confusion. A new name "Pituitary Insipidus" has been recommended for cranial DI, while "Renal Insipidus" is suggested for nephrogenic DI.[1] Polycystic ovarian syndrome can be renamed more appropriately as "Androgenic Syndrome" as the condition that does not require polycystic ovaries for diagnosis. The syndrome is characterized by features of hyperandrogenism and anovulation.[15]

Limitations of this proposal include the need to disseminate the name changes in medical and research literature, as well as in public media. In the initial phase, existing and new names should be mentioned together to allow readers to link the 2 together.

Conclusion

In this article, new names have been proposed to replace the cryptic and confusing nomenclature for types of diabetes. The proposed names are clear, descriptive, and can help reduce medical errors while improving public understanding of these highly prevalent conditions.

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