Atypical diabetes: clarifying the muddy waters

We are writing this letter in response to Steenkamp and collegues' recent review article.[1] We have several concerns about the content of this review particularly in the context of the Canadian diabetes landscape.

There is no discussion in the review around the controversy that surrounds the diagnoses of ketosis-prone diabetes and latent-autoimmune diabetes of adulthood (LADA). Many clinicians believe these are not separate entities but are within the spectrum of type 2 diabetes and type 1 diabetes, respectively. There is no mention of the occurrence of diabetic ketoacidosis in both adults and children with type 2 diabetes. This has been well published over the last two decades in both adults and children.[2–4]

The authors use somewhat dated terminology, such as "the classic juvenile form of diabetes." Both the Canadian Diabetes Association and the American Diabetes Association discontinued the use of this terminology more than 15 years ago.

The Canadian Diabetes Association has worked hard to provide useful age-specific definitions and management guidelines; these are available online for health care providers.[5]

The authors state that metformin is first line therapy for most patients with type 2 diabetes. This is not consistent with the Canadian Diabetes Association Clinical Practice Guidelines where lifestyle modification is first line therapy in children and also in adults. Perhaps it should have been clarified that metformin would be the first-line pharmacotherapeutic agent.

Mention of the polymorphism of the HNF 1 α gene found in the Oji–Cree of northeastern Manitoba and northwestern Ontario is warranted. This polymorphism contributes to the development of type 2 diabetes in the Oji–Cree, who have among the highest reported rates of type 2 diabetes in both adults and youth.[6,7] Regional differences are important to reinforce to ensure optimal diagnoses and intervention.

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Author response

This article was written for the practising primary care clinician, who may occasionally take care of a patient with diabetes who doesn't seem to fit into our typical diabetes classification paradigm. It is not a comprehensive review of the topic for the expert practising endocrinologist.

LADA is a slowly progressive form of type 1a diabetes, and while it may not be distinct from type 1 diabetes, it has certain autoimmune and phenotypic features that distinguish it from childhood type 1 diabetes. Ketosis prone diabetes (KPD) is not simply type 2 diabetes presenting with ketoacidosis. This group of patients is still poorly understood, and much work needs to be done in furthering our understanding of the basic pathophysiology of this heterogeneous group of diabetes. Emerging metabolomics data suggest that in individuals within certain subsets of