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TYPE TWO DIABETES IN ADOLESCENTS AND CHILDREN: TRENDS AND RISKS

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Authors' contribution:
A. Study design/planning
B. Data collection/entry
C. Data analysis/statistics
D. Data interpretation
E. Preparation of manuscript
F. Literature analysis/search
G. Funds collection

Dear Editor,

Recently, we had pleasure of reading an insightful article by Wei et al. [1], focusing on young-onset type 2 diabetes mellitus. We wish to emphasize the relevance of this topic due to the number of possible complications in the future resulting directly from the increasing prevalence of diabetes in the population.

Type 2 diabetes is a chronic condition characterized by sustained high blood glucose concentrations resulting from tissue insulin resistance. The data presented in the work of Wei et al. [1] illustrate an alarming trend, projecting a quadrupling in the prevalence of type 2 diabetes among children and adolescents in the US by the year 2050 [2,3]. Such rapid growth points to the crisis ahead, as well as the need for a shift in approach to the measures required to overcome this challenge worldwide.

Another example of worrisome data is the conclusions from the National Health and Nutrition Examination Survey spanning from 2005 to 2016, which revealed that approximately 18% of children aged 12-18 were diagnosed with prediabetes based on HbA1c serum concentration [4]. This statistic signals a need for early interventions, education, and precautionary measures in order to prevent the progression of the disease to the fully symptomatic stage of diabetes mellitus to mitigate potential future complications.

Another essential aspect of the article was findings compiled from the TODAY study [5], which outlined the major influence of type 2 diabetes on the long-term health and well-being of young individuals. The findings show that the cumulative incidence of microangiopathic complications comes up to around 50% within 9 years and 80% within 15 years after a type 2 diabetes diagnosis.

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Another troubling factor is macroangiopathic complications such as coronary heart disease, peripheral artery disease, and cardiomyopathy, contributing to a significant reduction of healthy life years in this group. The stark comparison between youth diagnosed with type 1 and type 2 diabetes in terms of age-adjusted prevalence of hypertension and arterial stiffening after 8 years of the disease underscores the severity of complications and the urgency of managing these comorbidities early in order to avoid long-term health consequences [5].

In summary, the rise in type 2 diabetes among young people and its associated complications require immediate attention from healthcare stakeholders, policymakers, and the general public. Collaborative efforts are needed to raise awareness, improve precautionary measures, and advance healthcare services for young people at risk of or living with type 2 diabetes.

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