Prevalence of diabetes type 1 and type 2 in children and adults in Kazakhstan in 2016

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Introduction:

The prevalence of diabetes for all age-groups worldwide was estimated to be 28/1000 in 2000 and 44/1000 in 2030 (1). In the SEARCH study in a population of 3,458,974 US youth less than 20 yrs the prevalence of T1D was 1.93/1,000 and type 2 diabetes 0.24/1,000 (2).

Methods:

We reviewed data on already diagnosed patients with type 1 and type 2 diabetes from official statistical collection of Ministry of Health of Kazakhstan in 2016 (3). Total population of Children (0-15 yrs.) was 4,962,400, Adolescents (15-18 yrs.) was 660,900, and adult population was 12,294,900 in Kazakhstan in 2016. Diabetes type 1 was present in 2,942 children, 969 adolescents and 27,453 adults in 2016.

Results:

Prevalence of diabetes type 1 in children was 0.6 in 1000, in adolescents was 1.4 in 1000 and in adults was 2.2 in 1000.

Diabetes type 2 was present in 485 children, 214 adolescents and 342,325 adults in 2016.

Prevalence of diabetes type 2 in children was 0.09 in 1000, in adolescents was 0.32 in 1000 and in adults was 27 in 1000.

Conclusions:

In Kazakhstan prevalence of diabetes type 1 in children less than 15 yrs is 0.6 in 1000 children. There is significant geographic differences in prevalence of diabetes type 1 in children less than 15 yrs. in countries around Kazakhstan: Russia 16/1000, China 7.7/1000, Ukraine 3.3/1000, Pakistan 1.6/1000, Uzbekistan 0.6/1000, Armenia 0.3/1000, Tajikistan 0.2/1000, Turkmenistan and Kyrgyzstan 0.1/1000 (4).
Such low prevalence in this area of Kazakhstan, Uzbekistan, Armenia, Tajikistan, Turkmenistan and Kyrgyzstan is poorly understood. It can be because of genetic background, different HLA types, diet preference. Furher study of genetic background, HLA pheotype and diet in Kazakhstan can help to explain ethiology of diabetes type 1 in Kazakhstan and understand such low prevalence.

References:

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Diabetes and insulin
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Poster presented at: