Correspondence

Comment on: Autoimmune diseases and their prevalence in Saudi Arabian patients with type 1 diabetes mellitus

To the Editor

I have read with a great interest the paper titled "Autoimmune diseases and their prevalence in Saudi Arabian patients with type 1 diabetes mellitus by Mohammedsaeed & Alghamdi".[1] The study showed a clear association between autoimmune diseases weather it comes as a single disease or part of a syndromic polyglandular disease with type 1 diabetes mellitus (T1DM).[1] Such association creates questions regarding the implication of positive autoantibodies of certain diseases in a patient who have been diagnosed with an autoimmune disease specifically T1DM.

Further dissection of the study showed that, majority of the cohort were adult more than 18 years of age (53%).[1] Lack of positive autoantibodies was found in almost a quarter of the cohort (23.6%). The range of duration in DM was between 6 and 11 years. The mean Hba1c was 9.9% which reflect how difficult to control such age group.[1] Furthermore, the mean LDL-C was 5.2±1.4 mmol/L which indicates that such group carries high risk phenotype for cardiovascular disease and unfortunately, anti-lipid medications are not usually considered as part of treatment, because of their sage.

Looking at Table 2 in the manuscript, the frequency of autoimmune thyroid disease was 15.8% for male and 21.1% for female which is almost like what is reported internationally.[1-3] However, the striking figures on the frequency of adrenal insufficiency was 17.8% in male and 18.5% in female which almost consists of one-fifth of this large cohort that might suggest the need of checking 21 hydroxylase antibodies to have preemptive diagnosis of adrenal insufficiency since the international figure was only 1-2%.[4]

The hallmark of TIDM is the presence of autoimmune antibodies that destroy β-cells with absolute or relative insulin deficiency.[5] The presence of at least 2 autoantibodies with variable degree blood sugar levels has proposed to define stages of T1DM even in the preclinical stage.[6] Unfortunately, in Saudi Arabia the incidence of T1DM has been reported to be increasing over the last few decades. It had increased from 18.5 per 100,000 to 36.00 per 100,000 children 14 years and younger.[7] Such a significant rise makes Saudi Arabia as prevalent of both type 1 and type 2 diabetes mellitus that warrant further research to explore the etiology and suggest future solutions.

Abdulghani Alsaeed
Department of Medicine, Endocrinology & Diabetes
Prince Sultan Military Medical City
Riyadh, Kingdom of Saudi Arabia

Saudi Med J 2023; Vol. 44 (12): 1310
doi: 10.15537/smj.2023.44.12.20230818

Reply from the Author

No reply was received from the Author.

References

1. Mohammedsaeed WM, Alghamdi ZJ. Autoimmune diseases and their prevalence in Saudi Arabian patients with type 1 diabetes mellitus. ***Saudi Med J*** 2023; 44: 751-760.
2. McLeod DS, Cooper DS. The incidence and prevalence of thyroid autoimmunity. ***Endocrine*** 2012; 42: 252-265.
3. Sumník Z, Drevínek P, Snajderová M, Kolousková S, Sedláková P, Pechová M, et al. HLA-DQ polymorphisms modify the risk of thyroid autoimmunity in children with type 1 diabetes mellitus. ***J Pediatr Endocrinol Metab*** 2003; 16: 851.
4. Peterson P, Salmi H, Hyöty H, Miettinen A, Ilonen J, Reijonen H, et al. Steroid 21-hydroxylase autoantibodies in insulin-dependent diabetes mellitus. Childhood Diabetes in Finland (DiMe) Study Group. ***Clin Immunol Immunopathol*** 1997; 82: 37.
5. ElSayed NA, Aleppo G, Aroda VR, Bannuru RR, Brown FM, Bruemmer D. Standard of care of diabetes-2023. ***Diabetes Care*** 2023; 46; S19-S40
6. Insel RA, Dunne JL, Atkinson MA, Chiang JL, Dabelea D, Gottlieb PA, et al. Staging presymptomatic type 1 diabetes: a scientific statement of JDRF, the Endocrine Society, and the American Diabetes Association. ***Diabetes Care*** 2015; 38: 1964.
7. Alotaibi A, Perry L, Gholizadeh L, Al-Ganmi A. Incidence and prevalence rates of diabetes mellitus in Saudi Arabia: An overview. ***J Epidemiol Glob Health*** 2017; 7: 211-218.