

LETTER TO THE EDITOR

Relation between Type 2 diabetes mellitus and thyroid disease

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Dear Editor,

We have read with interest the article by Sotak S et al entitled "Type 2 diabetes mellitus and thyroid disease: a two-sided analysis" (1) published recently in your journal. It has presented the data from a valuable study, trying to find an answer to an important question. The main conclusions of the study were that patients with type 2 diabetes (T2DM) showed to have higher prevalence of autoimmune thyroid disease and primary hypothyroidism; higher prevalence of T2DM in patients with thyroid diseases was not found.

A comprehensive list of studies related to the topic and also profound discussion about collected and analyzed amount of data, leading to interesting debate has been provided in the article.

Nevertheless, we would like to make several comments that may contribute to further, more detailed discussion of the issue.

1) A mean BMI of the T2DM patients group is not shown but those of different subgroups varying from 24.57 to 27.08 are rather lower than expected in T2DM patients and together with range of patients' age starting at 43 years (suggesting that some of the subjects were at lower age than usually expected in T2DM) raised question about the definition of T2DM patients used in the study. Thus, above mentioned numbers could be explained by a false recruitment of one or more type 1 diabetes patients (LADA)

which would bias published results. Also, mean duration of diabetes and way of its treatment would add important details to the study results.

2) We would like to raise significant concerns about the definition of hypo/hyperthyroidism (it was defined as higher TSH with low/normal TH and low TSH and high/normal TH). It is well known that TSH can be influenced by many non-thyroid causes and in finding of subclinical hypothyroidism (TSH 4–10 mUJ/l) or subclinical hyperthyroidism it is recommended to check the results within a month in the vast majority of patients since a significant numbers of initially pathologic TSH levels are then normalized. It means that numbers of patients with real hypo/hyperthyroidism could be significantly lower.

3) Furthermore, it would be interesting to see the numbers of patients with pathologic titres of anti-TPO and anti Tg, respectively (and not only the absolute level of the antibodies) since the presence of anti-TPO/anti-Tg is only a marker of autoimmune inflammation, fluctuating significantly also in regards with non-thyroid status (e.g. concurrent viral infection etc.).

We, with great respect, suggest taking into the account these comments into the protocol of this interesting and important study, if its continuation is planned.

References

1. Sotak S, Felsoci M, Lazurova I. Type 2 diabetes mellitus and thyroid disease: a two-sided analysis. *Bratisl Med J* 2018; 119 (6): 361–365

Received July 27, 2018.

Accepted August 29, 2018.

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Acknowledgement: This article was supported by Ministry of Health, Czech Republic – conceptual development of research organization, Motol University Hospital, Prague, Czech Republic 00064203.