Reviewer's report

Title: The Longitudinal Effect of Subclinical Hypothyroidism on Urine Microalbumin-to-Urine Creatinine Ratio in Patients with Type 2 Diabetes Mellitus

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Reviewer: Mesbah Shams

Reviewer's report:

The study is a retrospective cohort study on 30 patients with T2DM (type 2 diabetes mellitus) and SCH (subclinical hypothyroidism) to investigate the effect of SCH on urinary microalbumin-to-urine creatinine ratio (ΔUACR) and concluded that the SCH can elevate UACR in T2DM. So the article suggested the increase of the frequency of UACR follow up measurement in patients with T2DM and SCH.

My suggestions:

In "Abstract":

The result mentioned in the abstract "the ΔUACR was significantly higher in the euthyroid group than in SCH group, as shown by univariate analysis" is inconsistent with the result mentioned in the manuscript text: "Univariate analysis: The ΔUACR in the SCH group was higher than in the euthyroid group". !!!

In "Materials and Methods":

1- Controlled blood sugar and controlled lipid profiles must be defined and included as inclusion criteria.

2- The uncontrolled hypertension and congestive heart failure as the causes of albuminuria should be consider in exclusion criteria.

3- There is no description about sample size determination.

4- The subclinical hypothyroidism (SCH) must be defined accurately. Was the diagnosis of SCH based on a single TSH measurement?
What was the method for TSH measurement?

Were all of the measurements done in one laboratory and same method (kit)?

Have the authors considered the duration of SCH?

In "Results":

5- Table 2 is unclear. Needs revision.

6- Table 3: Control condition of DM (Well vs. Poor) is not defined accurately in the manuscript text.

7- Did you analyze the linear correlation between serum TSH levels and urine albumin levels?

In "Discussion":

8- The results of this study should be compared with previous researches on association between SCH and albuminuria in type 2 DM.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review
Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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