**Reviewer's report**

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

**Version: 0 Date: 28 Jan 2019**

**Reviewer:** Onyebuchi Okosieme

**Reviewer's report:**

The study by Xie et al investigate the effects of subclinical hypothyroidism on Urine Microalbumin-to-Urine Creatinine Ratio in Patients with Type 2 Diabetes Mellitus. They report a greater change in UACR in patients with subclinical hypothyroidism compared to euthyroid patients after one year of follow-up.

The study presents longitudinal data on the relationship between thyroid status and microalbuminuria. Such longitudinal data is generally scarce in the literature and is potentially useful. However, the sample size is small, the data is not clearly presented, and the manuscript lacks a number of relevant detail.

The ΔACR is not defined in the abstract. The definition of this measure is also unclear in the methods. Is this a difference from baseline or is it a proportion of the baseline. This should be clarified.

The prevalence of subclinical hypothyroidism in the general population and in patients with diabetes is cited as 3-15% and 2-17% respectively but the sources for these figures are unclear. A comment (ref 1) and an original article (ref 2) are cited to support these figures but the cited papers do not contain prevalence information. Appropriate reviews with prevalence data should be cited.

In the methods section, why was it necessary to admit the patients overnight for the tests?

The methods for urine albumin creatinine ratio or thyroid function tests are not described.
Were the patients with subclinical hypothyroidism treated with levothyroxine?

In the results section it states that the ΔACR was higher in SCH compared to the euthyroid group. The opposite is stated in the abstract. This should be corrected.

Table 3. Medians and inter-quartile ranges are presented but it is unclear from the table what is being measured. The measure should be stated in the table.

Reference 1 is repeated as reference 10.

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.

Yes

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 am able to assess the statistics

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published
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