Reviewer’s report

Title: Association between erythrocyte Na+K+-ATPase activity and some blood lipids Type 1 diabetic patients from Lagos, Nigeria.

Version: 2 Date: 4 June 2007

Reviewer: Muthuswamy Balasubramanyam

Reviewer’s report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Association between erythrocyte Na+ K+-ATPase activity and some blood lipids in Type 1 diabetic patients from Lagos, Nigeria.

In the revised manuscript, the authors to some extent clarified the issues raised by the reviewers. However the following queries are still to be attended to improve the quality of the manuscript.

1. A main claim in this manuscript was that there is an association between Na/K ATPase activity and lipid profiles. Considering the small sample size of the study and the specificity and sensitivity of the Na/K ATPase assay, ‘r’ and ‘p’ values reported for A1 patient group is phenomenally and non-biologically significant. Authors should provide relevant graphs (even as supplemental material) showing the individual points of Na/K ATPase measurements and correlations with glycemic and lipid parameters. This was warranted even in our earlier query, but not answered in the revised manuscript.

2. The explanation of the authors that ‘table 4 represents a multivariate regression analysis as opposed to the correlation analysis’, was not convincing. This needs to be clarified with a biostatistician from the editorial board.

3. The introduction and the discussion were of too lengthy and can be cut-short by only highlighting the results of the study with relevant literature support and interpretations.

4. Somewhere in the discussion (may be before the concluding remarks), the following limitations of the study should be delineated:
   a) Since the study is a cross-sectional one, the cause-and-effect relationship between lipid profiles and impaired Na/K ATPase can not be extrapolated to the cardiometabolic risk parameters.
   b) Other limitations of the study include the lack of measurements of HbA1c levels (the gold standard measure of glycemic status) and blood pressure.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

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What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
No competing interests