Reviewer’s report

Title: The prognostic value of total T3 after acute cerebral infarction is age-dependent: a retrospective study on 768 patients

Version: 0 Date: 30 Dec 2018

Reviewer: Radoslaw Kazmierski

Reviewer's report:

The paper addresses the important problem of evaluation of the "novel" risk factors - especially the neuroendocrine agents influencing the stroke outcome.

In this study, the large group of patients with ischemic stroke were included, and authors properly defined inclusion and exclusion criteria.

The research is original, and it is likely to contribute valuable information to the field of cerebrovascular disease outcome and in part could constitute the basis for potential future therapeutic trials.

The main findings of the study are that lower total T3 concentrations remained independently associated with the poor functional outcome just in the older group (but not in younger, defined as age below 65 years).

From the methodological point of view, the study is correct.

There are no major shortcomings.

Minor remarks:

Please explain the abbreviations on line 131: TFT (?), and line 188: TT3 (probably should be: serum total triiodothyronine)

Did authors have any data about ischemic stroke etiology? It could be helpful to assigned obtained results to the stroke etiology, for example: according to the Trial of Org 10172 in Acute Stroke Treatment (TOAST) criteria: large-vessel atherosclerosis, cardioembolic, small vessel disease (lacunar) etc... [see Adams HP Jr, Bendixen BH, Kappelle LJ, Biller J, et al. Stroke 1993; 24: 35 - 41 and Goldstein LB, et al. Stroke. 2001;32:1091-1097.]

If it is impossible authors should mention it in the study limitations. (In fact, there were no any mention of stroke subtypes in a recent meta-analysis, as well (see Jiang X. et al. Sci Rep.2017)).
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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