

## **Reviewer 1**

Epidemiological data show that more than half of stroke patients have different degrees of post-stroke cognitive impairment, and about one-third of patients develop severe post-stroke cognitive impairment or even dementia at 3 months after onset of the disease, but there is no specific treatment for this disease. Early detection and intervention of post-stroke cognitive impairment has become an important and urgent social need. Recent researches have found that post-stroke cognitive impairment is closely related to the core pathological changes of Alzheimer's disease, suggesting that both may have common diagnostic biomarker. However, little research has been done on the relationship between A $\beta$ , thyroid hormone levels and post-stroke cognitive impairment, and further studies are needed to identify the value of these indicators assessing the risk of cognitive disorders after acute ischemic stroke. In this study, the authors analyze the relevant indicators of patients with acute cerebral infarction, and to clarify the correlation between each index and post-stroke cognitive impairment. The study is designed well. Totally 195 patients with acute cerebral infarction were included. The inclusion criteria and exclusion criteria are clear and reasonable. The follow-up data are good. As the authors stated, the follow-up time is somewhat shorter, hope to read further studies about this topic. Minor comments: 1. Some minor language polishing should be corrected. 2. The tables are good, however, the structure of the table 1 should be improved. 3. References are updated, if the discussion can be shorten, it will be better.

Answer: Thank you for your comments, the manuscript has been revised accordingly.

1 We have proofed the manuscript again, and corrected the language polishing.

2 The tables were edited again.

3 The discussion was shorten.

## **Reviewer 2**

Very interesting topic of A $\beta$ 1-42, thyroid hormone levels in the ischemic stroke.

The manuscript is well written. The results are interesting and well discussed. I have no special comments.

Answer: Thank you for your recognition and support of our research.