Reviewer’s report

Title: Long-term outcome of vertebral artery origin stenosis in patients with acute ischemic stroke

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Reviewer: Wei-Jian Jiang

Reviewer’s report:

The authors’ idea is very nice to uncover the "Long-term outcome of vertebral artery origin stenosis in patients with acute ischemic stroke", really being an attractive title. However, some of additional necessary materials should be supplied to obtain a more scientific conclusion. So, the manuscript need majorly revising. Following are some comments:

1. Comparing outcomes and variates of AIS patients with VAOS to those without VAOS in Stroke registry, especially those without intra-, extra-cranial artery stenosis, may solidify our understanding of VAOS, and obtain a more scientific conclusion.

2. In this study, the recurrent stroke is a very important outcome index. Please clarify the definitions of ischemic stroke in posterior or anterior circulation and unknown stroke.

3. The definition of symptomatic or asymptomatic VAOS used by authors seems inaccurate, as VAOS resulting in posterior circulation TIA is also viewed as being symptomatic, in addition to posterior circulation ischemic stroke. It may be objective and better to divide VAOS into VAOS with or without acute infarct in posterior circulation.

4. Please be careful in explaining that the long-term outcome of VAOS with acute infarct in posterior circulation is worse than VAOS without acute infarct in posterior circulation, for the former has a higher proportion of co-existed VBA stenosis or occlusion in other sites.

5. ESRS being a predictor of recurrent cardiovascular events should be put into the ABSTRACT.

6. Table 2 dose not tell us the conditions of 2 groups. Please add these, as readers usually would like to know whether there is a difference in risk factor management and control between 2 group.

7. Please revise the CONCLUSION section based on new findings.

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:**

I declare that I have no competing interests