Reviewer's report

Title: Brainstem infarcts predict REM sleep behavior disorder in acute ischemic stroke

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Reviewer: zhang xi

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This cohort study uses RBD questionnaire (RBDQ) and brain MRI scan to determine RBD in patients with acute ischemic stroke. They found that 10.9% of 119 stroke patients met RBDQ criterion and these were in high proportion of acute brainstem infarct.

There are two major concerns for the current version of the manuscript:

1. It is well known that RBD can be caused by vascular diseases as well as other lesions in brainstem. Clinically, not all the brainstem infarct occurred RBD. The presence of RBD depends on the damaged region associated with the hypothesized REM sleep related structures and networks in brainstem. In Table 1, authors should summarize more precise infarct regions in brainstem of the RBD patients.

2. Video-PSG is considered as criterion for diagnosis of RBD. The RBDQ may be a practical and easy means assessing RBD. However, v-PSG should be performed and compared with the RBDQ results in this study.