Reviewer’s report

Title: Right-to-left shunt and subclinical ischemic brain lesions in Chinese migraineurs: A multicentre MRI study

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Reviewer: Vincent Larrue

Reviewer's report:

This study in migraineurs reports an association between SBI and large RLS, defined as a curtain of micro-embolic signals on TCD, compared to smaller RLS or no RLS.

This is an interesting and well-done study. I have, however, a few comments and suggestions.

It is not clear whether patients with a history of cerebrovascular disease were included.

The cortical/subcortical location of SBI should be specified.

An analysis of SBI associations with age, traditional vascular risk factors, and aura should be provided.

There were only 26 patients with SBI. The significant association of large RLS with SBI after multivariate adjustment (age, sex, aura, and main vascular risk factors) should thus be cautiously interpreted.

Since the study used TCD for the diagnosis of RLS, no data on atrial septal aneurysm were available. PFO associated with an atrial septal aneurysm is more strongly associated with stroke risk than PFO alone, and atrial septal aneurysms are usually associated with large RLS.
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?
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Yes

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I am able to assess the statistics

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Needs some language corrections before being published

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