

# Letter to the Editor

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## Response by Loos et al to Letter Regarding Article, “Long-Term Morphological Changes of Symptomatic Lacunar Infarcts and Surrounding White Matter on Structural Magnetic Resonance Imaging”

### In Response:

We thank Ryan et al<sup>1</sup> for their interest and comment on our work on the long-term morphological changes of symptomatic lacunar infarcts and surrounding white matter on structural magnetic resonance imaging.<sup>2</sup> Although it is an interesting thought that subcortical lacunar infarctions exhibit more symptomatic episodic hypotension, which could mean that select, older patients may benefit from higher blood pressure targets, we cannot support their conclusion.<sup>1</sup>

First, all of our patients had symptomatic lacunar infarcts, and we reported on cavitation of these index lesions and changes in the surrounding white matter.<sup>2</sup> We did not report on incident lacunar infarctions.

Further, Ryan et al comment that lacunar infarction mainly occurred in the subcortical white matter and that subcortical infarctions occur in older patients. However, we observed white matter changes not only around lacunar infarcts in the white matter but also in brain stem, basal ganglia, thalamus, and internal and external capsule. We also think that our population was relatively young because the mean age was 65 ( $\pm 11$ ) years.<sup>2</sup> Moreover, these morphological changes were not an age-related process because age was not associated with the formation of white matter caps or tracts.<sup>2</sup>

Finally, we did not report on diastolic or systolic blood pressure, and we did not report on any association with lacunar infarction. Because we do not have detailed continuous blood pressure measurements, we are neither able to comment on whether hypotensive episodes are more frequent in patients with lacunar infarcts nor can we conclude that these patients could benefit from higher blood pressure targets.<sup>1</sup>

None.

## Disclosures

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## References

1. Ryan DJ, Collins DR, Harbinson JA. Letter by Ryan et al regarding article, “Long-term morphological changes of symptomatic lacunar infarcts and surrounding white matter on structural magnetic resonance imaging.” *Stroke*. 2018;49:e268. doi: 10.1161/STROKEAHA.118.021653.
2. Loos CMJ, Makin SDJ, Staals J, Dennis MS, van Oostenbrugge RJ, Wardlaw JM. Long-term morphological changes of symptomatic lacunar infarcts and surrounding white matter on structural magnetic resonance imaging. *Stroke*. 2018;49:1183–1188. doi: 10.1161/STROKEAHA.117.020495.