AJNR

Reply:

Y. Inoue, M. Nakajima, T. Hirai and Y. Ando

AJNR Am J Neuroradiol 2016, 37 (3) E26
doi: https://doi.org/10.3174/ajnr.A4686
http://www.ajnr.org/content/37/3/E26

REPLY:

We sincerely thank Harrison X. Bai and colleagues for their interest and comments regarding our recent article, in which we demonstrated the diagnostic significance of cortical superficial siderosis (cSS) for Alzheimer disease in patients with cognitive impairment.[1]

Regarding the methodologic issues of the present study that their letter raises, the diagnosis of cSS seen on susceptibility-weighted imaging was based on collegial discussion with experienced neuroradiologists, and no data are available for interobserver variability. We defined cSS as linear hypointensities on the surface of the cerebral gyri on SWI. The appearance of cSS on SWI was obvious in this study; fortunately, we had no difficulty in distinguishing cSS from lobar cerebral microbleeds (MBs). Very superficial clusters of multiple MBs can be mistaken for cSS, but these would be distinguished by their irregular appearance.[2]

In relation to exclusions, 4 patients with previous symptomatic subarachnoid hemorrhage, 23 patients with traumatic subdural hematoma, and 1 patient with an intracranial operation were excluded according to medical charts. We therefore presented 12 cases with cSS that did not seem to have occult sources of bleeding, as the authors pointed out.

We agree with their statement that elucidating the pathogenesis of cSS from cerebral amyloid angiopathy (CAA) warrants further analysis. However, imaging-histopathologic correlations shown in cases with CAA might indicate that recurrent blood leakage of meningeal vessels leads to the propagation of cSS.[3] To confirm the progression of CAA-related cSS, prospective studies are needed that recruit patients with CAA based on the Boston criteria.[4]

http://dx.doi.org/10.3174/ajnr.A4686

REFERENCES

1. Inoue Y, Nakajima M, Uetani H, et al. **Diagnostic significance of cortical superficial siderosis for Alzheimer disease in patients with cognitive impairment.** *AJNR Am J Neuroradiol* 2015 Oct 8. [Epub ahead of print] CrossRef Medline
2. Charidimou A, Linn J, Vernooij MW, et al. **Cortical superficial siderosis: detection and clinical significance in cerebral amyloid angiopathy and related conditions.** *Brain* 2015;138:2126–39 CrossRef Medline
3. Beitzke M, Enzinger C, Wünsch G, et al. **Contribution of convexal subarachnoid hemorrhage to disease progression in cerebral amyloid angiopathy.** *Stroke* 2015;46:1533–40 CrossRef Medline
4. Knudsen KA, Rosand J, Karluk D, et al. **Clinical diagnosis of cerebral amyloid angiopathy: validation of the Boston criteria.** *Neurology* 2001;56:537–39 CrossRef Medline

Y. Inoue
M. Nakajima
Department of Neurology
T. Hirai
Department of Diagnostic Radiology
Y. Ando
Department of Neurology
Graduate School of Medical Sciences
Kumamoto University
Kumamoto, Japan