Cerebral Amyloid Angiopathy-related Microbleeds: Radiology versus Pathology

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Picture 1.

Picture 2.

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Cerebral amyloid angiopathy (CAA) is an important cause of cerebral hemorrhages in the elderly. Magnetic resonance imaging (MRI) using a T2*-weighted gradient-echo sequence is useful for visualizing CAA-related microbleeds in living individuals (1), however, comparing MRI with the post-mortem pathology is insufficient. An 87-year-old woman developed large subcortical hematomas in the occipital lobes (Picture 1A). MRI showed the presence of microbleeds mainly in the parieto-occipital cortices (Picture 1). Thus, she was tentatively diagnosed as having CAA. The autopsied brain revealed microbleeds (Picture 2), where many hemosiderin-laden macrophages surrounded the small cortical vessels (Picture 2B insert). The histochemical findings showed that anti-A β 1-40 antibody-immunoreactive amyloid deposits extensively involved the subarachnoidal and cortical vessels (Picture 3A), showing severe microan-

giopathy in the cortex (Picture 3B, C). No significant number of senile plaques or neurofibrillary tangles were observed. Therefore, the distribution of microbleeds predominantly located in the posterior half of the brain is considered to be characteristic for CAA (2).

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References

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