Teaching NeuroImages:

Isolated vertigo and imbalance due to deep border zone cerebellar infarct

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Figure Right deep border zone cerebellar infarct with ipsilateral proximal large artery disease

Axial (A) diffusion-weighted imaging displays acute deep infarct at the boundary zone between medial and lateral branch of the right posterior inferior cerebellar artery. Anterior (B) and lateral (C) views of CT angiography show occlusion of right vertebral artery and stenosis of right subclavian artery (arrows).

An 81-year-old man with hypertension and diabetes suddenly developed persistent vertigo and imbalance at rest. Examination did not find any positive signs except direction-changing nystagmus on day 7. MRI displayed acute deep infarcts at the boundary zone between medial and lateral branch of the right posterior inferior cerebellar artery (figure, A). CT angiography showed occlusion of ipsilateral vertebral artery (figure, B and C). This case demonstrates that isolated vertigo and imbalance may be due to deep watershed cerebellar infarct, which may have as a mechanism focal hypoperfusion caused by large artery occlusive disease, as in the anterior circulation.^{1,2}

AUTHOR CONTRIBUTIONS

Dr. Chen: drafting/revising the manuscript, acquisition of data. Dr. Fang: drafting/revising the manuscript, study supervision. Dr. Dong: drafting/revising the manuscript, acquisition of data. Dr. Di: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, acquisition of data, study supervision. Dr. Li: drafting/revising the manuscript, acquisition of data.

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