A 61-year-old woman with no history of neck trauma had sudden onset of neck pain, then developed loss of consciousness, and was transferred to our hospital. On admission, she was in a coma, and quadriparetic with bilateral pathological reflexes. T2-weighted MR images clearly demonstrated high-intensity areas in right lower and left upper pons, and an intimal flap within the tangent view of basilar artery (Fig. 1). MRA showed spiral dilatation of the basilar artery with poor

Crossed Pontine Infarction Caused by Vertebro-basilar Artery Dissection

Key words: pontine infarction, MRI, basilar artery dissection

Figure 1. Serial axial T2-weighted MR images demonstrated high-intensity areas in the right lower and left upper pons. Intraluminal high-intensity areas within the basilar artery (arrowhead) were considered to represent an intimal flap.

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visualization of the distal portion in the left vertebral artery (Fig. 2), and an angiogram revealed tapered occlusion in basilar artery. These findings may indicate that spontaneous spiral dissection in the basilar artery caused the occlusion of the paramedian arteries, giving rise to infarction in alternate sides of the pons. To date various types of brainstem infarction by dissection of the basilar artery have been reported, but there is no report showing crossed infarction within pons.

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Figure 2. MRA demonstrated spiral dilatation of the basilar artery, suggesting a false lumen that continued to the right vertebral artery, with poor visualization of the distal portion of the left vertebral artery (upper left, frontal view; upper right, lateral view; lower left, right oblique view; lower right, left oblique view).