Sequential MR imaging and SPECT studies in herpes simplex encephalitis with crossed cerebellar hyperperfusion

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We report a case of herpes simplex encephalitis in which sequential MR imaging and SPECT studies showed interesting findings. SPECT in the acute stage showed wide increased uptake in the left cerebral hemisphere, as well as increased uptake in the contralateral right cerebellar hemisphere. T1-weighted images in the subacute stage showed hyperintense signals along the cerebral cortices, but T2*-weighted gradient-echo images did not show any signal decrease caused by the magnetic susceptibility effect of hemoglobin degradation. Sequential SPECT studies in addition to MR imaging facilitate precise understanding of the pathophysiology of herpes simplex encephalitis.

Key words: MR imaging, SPECT, herpes simplex encephalitis