

Atypical finding of brain Tc-99m-ECD SPECT imaging in herpes simplex encephalitis

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Lesions in acute herpes simplex encephalitis (HSE) have been reported to show decreased uptake of Tc-99m ethyl cysteinate dimer (ECD). A patient with acute HSE displaying a lesion in the left temporal lobe was evaluated by means of Tc-99m ECD single-photon emission computed tomography (SPECT). Dynamic SPECT images indicated regionally increased uptake of tracer in the ipsilateral temporal lobe in early phases, followed by slight washout of Tc-99m ECD from the lesion. Static SPECT images revealed increased tracer uptake in the same region. MRI later demonstrated that the HSE lesion involved the whole cortex of the temporal lobe on the affected side. These findings suggest that acute HSE lesions do not always exhibit hypoactivity on static Tc-99m ECD SPECT, and that dynamic Tc-99m ECD SPECT may help physicians diagnose acute HSE.

Key words: herpes simplex encephalitis, Tc-99m ECD, dynamic SPECT