Re: Interhemispheric Asymmetries of Motor Cortex Excitability in the Postacute Stroke Stage

To the Editor:

Cicinelli and others report that intracortical inhibition was reduced in affected hemispheres and normal in the unaffected hemispheres of stroke patients. Neurobiological features are suggested by 2.5- to 3-second delay periods for inhibition shaping the temporal flow of information in the prefrontal cortex, which represents action sequence boundaries.

This hypothesis is supported by the association of reduction of blood pressure with longer, less recurrent speech hesitation pauses (SHPs); behavioral correlates of mood, of about 2 seconds linked to prefrontal cortex modulation of dopamine during the delayed alternation task; and optimum response organization and working memory at intermediate dopamine tone in a mediofrontostriatal activation system.

The fact that rate and variability in duration of SHPs, 4.79±2.48 per minute, 1.50±0.33 seconds (mean±SD), correlate with the left and right hemisphere, respectively, suggests that the analysis of SHPs on a time-base might provide a valuable behavioral parameter in the prognosis and follow-up of patients with monohemispheric stroke.

Ernest H. Friedman, MD
Department of Medicine and Psychiatry
Case Western Reserve University
Cleveland, Ohio


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Ernest H. Friedman

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