The NIH Stroke Scale and the FIM in Stroke Rehabilitation

To the Editor:

The National Institutes of Health (NIH) stroke scale is an easy-to-administer, 15-item neurological examination scale with high test–retest reliability that was designed for use in acute stroke therapy. The Functional Independence Measurement (FIM), a relatively new functional disability scale designed to be more sensitive than the Barthel Index and easily administered without the requirement for special clinical skills, is becoming increasingly used in stroke rehabilitation.

To determine whether the impairment due to stroke as measured by a neurological examination correlates with the disability as measured by a functional score, we undertook a prospective study of serial patients with recent stroke admitted to two rehabilitation medicine services. We assessed 19 patients using the NIH stroke scale and the FIM within a month of stroke onset. Infarct volume was measured on computed tomographic scans using a previously reported method. We correlated NIH stroke scale, FIM score, and infarct volume using Pearson correlation coefficients. We found a highly significant correlation between the NIH scale and the FIM (correlation coefficient, \( r = 0.79; p < 0.0001 \)).

No correlation was found between either the NIH scale or the FIM and infarct volume.

We confirm that the NIH scale is a predictor of stroke disability, and its high interexaminer and intraexaminer reliability (when administered by doctors or nurses) makes it ideal for use in stroke rehabilitation. Our study also shows that although the FIM is based on independence in activities of daily living and not on a formal neurological examination, it can reflect the sum of the clinical neurological deficits. The lack of correlation of either scale with infarct volume may have been due to the small numbers in our study, but it suggests that infarct location is more important than infarct volume in determining the degree of impairment.

Patrick Pullicino, MD
Wendy Snyder, BS
Carl Granger, MD
Department of Neurology
Department of Rehabilitation Medicine
State University of New York
Buffalo, N.Y.

References


The Syndrome of Babinski and Nageotte

To the Editor:

We read with interest the article by Nakane et al. about the Babinski-Nageotte syndrome. In the introduction the authors stated that in 1902, Babinski and Nageotte first reported three autopsy cases characterized by symptoms caused by an ischemic lesion of the medulla oblongata involving the unilateral and medial areas of the medulla. This is not exact for the following reasons: first, prior to the Babinski-Nageotte publications, Reinhold reported in 1894 an autopsy study of combined medial and lateral infarction of the medulla. Second, Babinski and Nageotte reported a medullary syndrome based on three similar cases but with a pathological study in only one case. Successively, these authors in...
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P Pallicino, W Snyder and C Granger

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