Changes in plasma homocyst(e)ine in the acute phase after stroke.

Submitted by vjhoward on Tue, 10/08/2013 - 10:51am

Title
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Publication Type
Journal Article

Year of Publication
2002

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Stability of Plasma Homocyst(e)ine in Acute Stroke Patients (SHASP) Study Investigators

Journal
Stroke

Volume
33

Issue
2

Pagination
473-8

Date Published
2002 Feb

ISSN
1524-4628

Keywords
Acute Disease, Adult, Aged, Aged, 80 and over, Demography, Female, Homocysteine, Homocystine, Humans, Magnetic Resonance Imaging, Male, Middle Aged, Prospective Studies, Risk Factors, Sample Size, Stroke, Time Factors, Tomography, X-Ray Computed

Abstract

BACKGROUND AND PURPOSE: Elevated plasma homocyst(e)ine [H(e)] concentration has been associated with an increased risk of stroke. Although the literature suggests that H(e) increases from the acute to the convalescent phase after a stroke, it is not known whether H(e) changes within the acute period.

METHODS: A prospective, multicenter study was conducted to examine changes in H(e) during the 2 weeks after an incident stroke. Blood samples were collected at days 1, 3, 5, 7, and between 10 and 14 days after the stroke.

RESULTS: Seventy-six participants (51 men) were enrolled from 9 sites from February 1997 through June 1998. Mean age was 65.6 years, and subjects had at least two H(e) measurements. The estimated mean H(e) level at baseline was 11.3+/-0.5 micromol/L, which increased consistently to a mean of 12.0+/-0.05, 12.4+/-0.5, 13.3+/-0.5, and 13.7+/-0.7 micromol/L at days 3, 5, 7, and 10 to 14, respectively. The magnitude of the change in H(e) was not affected by age, sex, smoking status, alcohol use, history of hypertension or diabetes, or Rankin Scale Score.

CONCLUSIONS: These data suggest that the clinical interpretation of H(e) after stroke and the eligibility for clinical trials assessing treatment for elevated H(e) levels require an adjustment in...
time since stroke to properly interpret the observed H(e) levels.