
To the Editor:

With great interest we read in Stroke that a working group around Soustiel found cerebral blood flow (CBF) as measured by $^{133}$xenon clearance technique with blood-flow-volume (BFV) measurements from the internal carotid artery (ICA). Soustiel et al found well-correlated data, i.e., correlation coefficients $>0.75$, in a total of 77 measurements. As a conclusion, the quality of correlations as well as practicability of the new BFV measuring method were emphasized.

In Figures 2 and 3, the results of regression analyses of Xe133 CBF and ICA BFV values are shown. The correlation coefficients of the ipsilateral and global measurements are promising; however, when calculating the coefficient of determination $r^2$, only 58% and 70% of data analyzed take part in the correlation, respectively. We speculate the individual error in Xe133 CBF estimation being large.

The main statement of this article seems to be that Xe133 CBF and ICA BFV are proportional. This is not a surprise when measuring these variables because they are naturally related, especially in the global case. Thus, the marked statistical significance of correlation coefficients could be expected. The main criticism, however, is the missing error estimation. Correlations were characterized being “accurate,” but to what extent? The knowledge of confidence intervals of regression would relate the authors’ impression of accuracy in the individual case.

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Stroke. 2003;34:e239; originally published online November 20, 2003;
doi: 10.1161/01.STR.0000102418.50115.05
Stroke is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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Print ISSN: 0039-2499. Online ISSN: 1524-4628

The online version of this article, along with updated information and services, is located on the
World Wide Web at:
http://stroke.ahajournals.org/content/34/12/e239

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