Response to Letter by Corea et al

Response:

We thank Corea et al for their letter in response to our paper.1 To address the comments stated in the letter, we will tackle the raised concerns on a point-by-point basis.

First, we acknowledge that besides the National Institutes of Health Stroke Scale (NIHSS), it is useful to consider other valid neurological scales for neurological assessment such as the Canadian Neurological Scale. However, we would like to emphasize that the NIHSS is used as a standard measurement instrument by most physicians2 and nurses3 in stroke units. The reason for selecting NIHSS is the excellent clinimetric properties in terms of reliability, validity, and feasibility. Recently the American Heart Association recommended the bedside NIHSS assessment as the common standard for interdisciplinary stroke care at hospital stroke units.3

Second, we are aware that it would be naïve to assume that the 39 patients who unsuccessfully received recombinant tissue plasminogen activator from the 156 represents 20% of all admitted patients included in the 9 hospital stroke units. It is clearly stated that patients should meet a number of inclusion criteria to participate. Therefore, it is obvious that the Early Prediction of Outcome after Stroke (EPOS) cohort is a selection of patients admitted in these 9 stroke units.

With regard to the rehabilitation approach, it is stated under “Materials and Methods” (p 746) that all patients received treatment according to the Dutch rehabilitation guidelines, which are in agreement with current international rehabilitation guidelines. Third, we were surprised by the comment that “no data concerning disability of patients enrolled is available.” Scores on the disability scale, Barthel Index, with a median of 8 points (interquartile range: 3 to 14), are presented in Table 1. The Barthel Index reflects 8 different activities according to the International Classification of Functioning framework. The Barthel Index is the most commonly used measurement instrument in Europe showing excellent clinimetric properties, including predictive validity for final outcome at 6 months poststroke.4

Any “speculation” by Corea et al about the selection of mild to moderate stroke victims in the present cohort seems unwarranted, because this limitation is already clearly stated by the authors in the “Discussion” section.

We agree with Corea et al that it would be quite unexpected if NIHSS showed no collinearity with the other motor impairment scales. However, the motor parts of the NIHSS were not used for evaluating severity of upper and lower limb paresis, acknowledging that MI arm and leg as well as FM motor parts have been shown to be able to discriminate between different parts of paresis (in contrast to NIHSS) and are both highly predictive for outcome of upper limb function5 at 6 months poststroke.

Fourth, imaging characteristics were indeed beyond the scope of the present clinical study. On the basis of a previous study, we restricted ourselves to the Bamford classification (lacunar infarct, partial anterior circulation infarct, and total anterior circulation infarct) that shows predictive validity for final outcome of the upper paretic limb.5 We would like to emphasize that the added value of MRI characteristics such as volume6 next to careful clinical information is still unclear.

Finally, we were surprised by the term “potential confounders” as mentioned in the response. In fact, all arguments that are raised with respect to selection of clinical assessments, patients, and “patterns of brain damage” are related with the “external validity” (ie, “generalizability”) and not the internal validity of the present prospective study. As a consequence, the word confounding seems to be wrongly used by these authors from an epidemiological point of view.

Disclosures

None.

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