Letter to the Editor

We read with interest the article of Sakamoto et al1 about the results of the observational The Stroke Acute Management With Urgent Risk-Factor Assessment and Improvement-Intracerebral Hemorrhage (SAMURAI-ICH) study. Patients with acute ICH and severe hypertension (>200 mm Hg at presentation) received intravenous nicardipine to achieve systolic blood pressure (SBP) levels between 120 and 160 mm Hg for 24 hours. Although the SBP interval groups seem not balanced completely in number of patients (Figure 2),1 patients with the lowest achieved SBP values (<130 mm Hg; n=33) had the lowest proportion of worse clinical and radiological outcomes.1 In daily clinical practice, applying this aggressive antihypertensive treatment would imply (roughly) an average >70 mm Hg SBP reduction (from 200 to 130 mm Hg) in patients with hyperacute ICH. In the recent Intensive Blood Pressure Reduction in Acute Cerebral Haemorrhage trial II (INTERACTII), in only 33% of the patients, the target of <140 mm Hg was achieved after 1 hour.2 However, to get an idea about the efforts to get patients in the target window, exact data on applied dosages of nicardipine are needed.

Although guidelines and a recent INTERACTII trial recommended higher target SBP levels,2,3 the SAMURAI-ICH results made us wonder whether the suggestion of this lower absolute target value fits with an individualized treatment protocol to overcome hematoma expansion without perihematomal ischemia and extracerebral complications. It would be helpful if the authors could calculate relative (individual) achieved SBP reductions (%) and test the correlations with clinical and radiological outcomes. These relative values are less dependent on individual patient characteristics, such as chronic hypertension, heart failure, and disturbed cerebral autoregulation, and make comparison between patients probably more reliable. As suggested by observational stroke and ICH studies, this might reveal the frequently suggested U-shaped relationship between blood pressure (reduction) and outcome more clearly. This implicates that both hypotension and hypertension are associated with worse outcome.4,5 Already, some suggestions are present in the current SAMURAI-ICH data, with lower proportions of neurological deterioration in the 135 to 140 mm Hg group compared with both lower and higher SBP levels (Figure 2).1

Disclosures

None.

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