Letter to the Editor

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To the Editor:

We thank the authors for this timely and concise focused update of the 2013 guidelines for early management of patients with acute ischemic stroke on endovascular treatment.1 We have a concern about the interpretation of the data on patients who were not pretreated with intravenous alteplase. In the synopsis of the Multicenter Randomized Clinical trial of Endovascular Treatment for Acute Ischemic Stroke in the Netherlands (MR CLEAN) study the authors state that “There were too few patients who did not receive IV alteplase to draw any conclusions.” Indeed, only 55 patients without previous intravenous alteplase were included in MR CLEAN. However, subgroup analysis showed a similar effect size in patients not treated with intravenous alteplase (odds ratio [OR], 2.06; 95% confidence interval [CI], 0.99–4.26) as in patients pretreated with intravenous alteplase (OR, 1.71; 95% CI, 1.22–2.40), without statistical interaction between endovascular treatment and intravenous alteplase.2 Randomized Trial of Revascularization With Solitaire FR Device Versus Best Medical Therapy in the Treatment of Acute Stroke Due to Anterior Circulation Large Vessel Occlusion Presenting Within Eight Hours of Symptom Onset (REVASCAT) showed comparable results: 56 patients not treated with intravenous alteplase (OR, 2.6; 95% CI, 1.0–7.1) as to 76 patients who were pretreated (OR, 1.4; 95% CI, 0.8–2.6).3 Moreover, in Endovascular Treatment for Small Core and Anterior Circulation Proximal Occlusion With Emphasis on Minimizing CT to Recanalization Times (ESCAPE), patients without intravenous pretreatment seemed to benefit (OR, 2.6; 95% CI, 1.1–5.9) from endovascular treatment.4 In their conclusions, the authors of the updated guidelines state: “Too few data are available from the small number of those who did not receive intravenous recombinant tissue-type plasminogen activator, either for time-based or nontime-based exclusion criteria, to determine with certainty if there are characteristics that identify those who benefited from endovascular treatment.” When we combined the published data, there is no heterogeneity (P=0.78). In a fixed-effect model, the effect estimate is precise and statistically significant (OR, 2.3; 95% CI, 1.5–3.7). We think that the data from these 3 randomized controlled trials show that patients not pretreated with intravenous alteplase also benefit from intra-arterial therapy. We also think that the available evidence is sufficient to directly treat patients presenting within 6 hours with contraindications for intravenous alteplase, although we look forward to further analyses of pooled individual patient meta-analyses, to sort out the role of time and other medical reasons for not giving intravenous alteplase. Finally, we cannot exclude that the effect of endovascular treatment is larger when patients are not pretreated with intravenous alteplase because no pretreatment may save time, reduce the risk of hemorrhage, and retract more stable, unfragmented thrombi (A.S.A Autar, D. Beumer, R.J. Ganpat, O.A. Berkhemer, C.B. Majoie, M. De Maat, D.W.J. Dippel, H. Van Beusekom, unpublished data, 2015).

Disclosures

None.

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* A full list of the MR CLEAN investigators can be found on the trial Web site: http://www.mrclean-trial.org.

The authors chose not to respond.

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