Letter by Campbell and Short Regarding Article, “Type of Anesthesia and Differences in Clinical Outcome After Intra-Arterial Treatment for Ischemic Stroke”

To the Editor:

We read the study by van den Berg et al with great interest. Their hypothesis was that conscious sedation confers better outcomes than general anesthesia by avoiding significant blood pressure changes or treatment delays. We were disappointed to find the results did not conform to the minimum standard required in trials assessing outcome differences between general anesthesia and conscious sedation groups. No information was provided on the blood pressures recorded in each group. There was a 21 minute difference in time to commencement of therapy, but no time to reperfusion and no analysis of whether this accounted for the small difference in outcomes between groups. There was also no description of the airway and ventilation management or other relevant physiological parameters, such as oxygen saturations and end-tidal carbon dioxide measurements. The sedative or anesthetic drugs used in each group were also unreported. Was general anesthesia volatile or intravenous based?

Time to reperfusion is a critical omission; it was reported in the Multicenter Randomized Clinical Trial of Endovascular Treatment for Acute Ischemic Stroke in The Netherlands (MR CLEAN) study. If time is brain and general anesthesia may delay or expedite definitive treatment, why is it not reported here?

As clinicians managing the physiology and pharmacology of this critically ill group of patients, we feel an opportunity has been missed to answer these vital questions. The authors should provide an addendum with a more adequate description of the interventions in both arms, tables with summary statistics of relevant drugs and doses, summary statistics of available cardiovascular and respiratory physiology variables, and a table with a summary of appropriate treatment time points, including total time to reperfusion. All this data should be available to the trained research staff as they state they have accessed the relevant documents. A corrigendum with discussion of the additional data would be appropriate.

To know whether the differences in outcome were because of the differences in technique, physiological management or delay in management would provide useful information. Clinicians who manage the pharmacology and physiology of these critically ill patients could then assess the role of the drugs, doses, sedative techniques, physiological derangement, and specialist staff skilled in targeting normal or supranormal blood pressures on outcome, allowing appropriate resource allocation.

At present the study fails to answer its stated hypothesis.

Disclosures

None.

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