Letter by Kagawa et al Regarding Article, “Hypothermia in Comatose Survivors From Out-of-Hospital Cardiac Arrest: Pilot Trial Comparing 2 Levels of Target Temperature”

To the Editor:
We read with great interest the article by Lopez-de-Sa et al1 on the 2 hypothermia levels post cardiac arrest trial. The article provides insights into the management of comatose survivors of cardiac arrest and the future prospective for randomized trials concerning optimal target temperatures for therapeutic hypothermia. The authors worked with the assumption that the relative risk of 6-month survival free of dependence would be 1.86 with a cooling level of 32°C compared with 34°C. We agree with the findings of the trial that suggest that maintenance of hypothermia at 32°C may be more advantageous than hypothermia of 34°C, which has been reported in animal studies.2 However, in our opinion, the advantage of 32°C over 34°C may be negligible because of the differences that exist in the baseline characteristics of the study patients.

It was reported that a longer time to return of spontaneous circulation (ROSC) is associated with adverse outcomes.3,4 In this study, the time to ROSC for patients in the 34°C group (31.9 minutes) was almost 10 minutes longer than that of the 32°C group (21.2 minutes). This 10-minute difference was not negligible and might worsen the outcomes of the 34°C group in this study. If we consider that the relative risk of favorable neurological outcomes is 0.90 with a time interval of 1 minute from collapse to ROSC,4 the rate of 6-month survival free of dependence amounts to 14.1% after adjusting for the time to ROSC. This value is almost one-third of the rate reported in the present study (44.4%), and there was no difference in the rate between the 2 groups (11.1% for patients of the 34°C group). The advantage of 32°C over 34°C may be smaller than that presented in this study according to the non-negligible differences of the time to ROSC between the 2 groups, and a forthcoming prospective, randomized trial would need a larger sample size than that described in the present article. We thank the authors for an illuminating study in an important area of research.

Disclosures

None.

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References


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