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

We thank Kagawa et al for their comments and appreciate their interest in our work.1 We agree with them that there are many possible factors that could influence the results of our pilot study. All of these factors could not be controlled in our study. Kagawa et al, based on the results of their retrospective study,2 consider that the relative risk of favorable neurological outcomes is 0.90 with a time interval of 1 minute from collapse to return of spontaneous circulation (ROSC). We need to consider that their findings were obtained from the full cohort treated or not with hypothermia. They also recognize that the rate of favorable neurological outcome was significantly higher in the hypothermia group than with normothermia with longer delay from collapse to ROSC. In our study, all patients were treated with hypothermia. So the calculations are necessarily different. Secondly, the most relevant component from the time from collapse-to-ROSC period is the time from collapse to advance CPR, which was almost identical in both groups in our study (9.6 and 9.8 minutes in the 32°C and 34°C group, respectively). Probably the effect on the prognosis between advance CPR to ROSC depends more on the quality on the CPR than CPR duration.3 Thirdly, Kagawa et al2 found that cut-off time from collapse to ROSC of 29 minutes had the highest combined sensitivity and specificity in the hypothermia group for identifying favorable neurological outcomes. In our study, we tested with the Cox proportional hazards model variables such as bystander CPR, age, minutes from collapse to ROSC (<30 minutes or not), and Glasgow Coma Scale score (3 or >3) with the assigned temperature. In patients with shockable initial rhythm, the Cox model identified only 3 variables significantly related to the primary outcome: age <66 years, Glasgow score at admission >3, and assignment to 32°C, confirmed with multivariate, logistic regression analysis. Minutes from collapse to ROSC (<30 minutes or not) did not reach statistical significance.

Disclosures

None.

References


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