

Targeted Temperature Management: HYPERION Trial



Moderate therapeutic hypothermia is recommended in patients with persistent coma after resuscitated out-of-hospital cardiac arrest in order to improve neurologic outcomes. But its effectiveness in patients with nonshockable rhythm still remains unclear. Findings from the HYPERION Trial were presented at the European Society of Intensive Care Medicine Congress #LIVES2019 in Berlin.

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The HYPERION study was conducted to compare moderate therapeutic hypothermia (defined as 33°C during the first 24 hours) with targeted normothermia (defined as 37°C) in patients with coma who were admitted to the ICU after being resuscitated from cardiac arrest with nonshockable rhythm. The primary outcome of the study was survival with a favourable neurologic outcome. This was assessed on day 90 of the study using the Cerebral Performance Category (CPC) scale. A CPC score of 1 or 2 was considered to be favourable neurologic outcome. Mortality and safety were also assessed in this study.

A total of 581 patients were included in this analysis. Findings showed that on day 90, 10.2% patients in the hypothermia group were alive with a CPC score of 1 or 2 while 5.7% patients in the normothermia group. There was no significant difference in mortality at 90 days between the two groups (81.3% and 83.2% respectively), and the same was true for adverse effects.

Overall, study findings show that in patients with coma who have been resuscitated from cardiac arrest with nonshockable rhythm, moderate therapeutic hypothermia resulted in a higher percentage of patient survival with a favourable neurologic outcome at day 90.

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