

Letter to the Editor

Important role of shivering suppression during therapeutic hypothermia

Dear Editor,

The history of therapeutic hypothermia (TH) dates back to Hippocrates. He advocated packing of wounded soldiers into snow and ice. In modern clinical medicine TH has been practiced for the last 200 years mostly in operating rooms. Pathophysiological basis of TH as a neuro-protective method is based on slowing of cellular metabolism secondary to decrease in body temperature. For every one degree Celsius drop in core body temperature, cellular metabolism slows by 5-7%. Recent studies showed novel benefits beyond metabolic slowing such as reduction of free radical production and reperfusion injury. As a result of these supportive studies the American Heart Association guidelines support the use of cooling after resuscitation from cardiac arrest since 2002.

In their recently published manuscript Li, et al¹ investigated the efficiency of TH in cardiac arrest patients and analyzed possible molecular mechanisms. They concluded that early treatment of hypothermia can improve the outcome of cardiac arrest patients. At present a growing number of studies pointing out favorable effects of TH are already exist but this study is noteworthy that authors handle the aspect of inflammation and necrosis. We have some methodological contributions about TH. As the authors mentioned, TH has many problems during clinical practice. Shivering is one of these pitfalls which raises body temperature during cooling². Failure to suppress shivering is a common reason for delays in achieving goal temperatures and shivering must be suppressed in patients being treated with TH. Therefore, titrating sedation to shivering suppression, rather than using standard sedation scales is recommended. High doses of sedatives are frequently necessary to accomplish this.

Conflict of Interest

The Authors declare that they have no conflict of interests.

References

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