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THERAPEUTIC HYPOTHERMIA FOR COMATOSE SURVIVORS OF IN-HOSPITAL CARDIAC ARREST

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Introduction

In-hospital cardiac arrest (IHCA) is associated with poorer outcomes than out-of-hospital arrest. Among the reasons for this are a higher percentage of pulseless electrical activity (PEA) and asystole arrests and comorbid acute illnesses1. In 2003, the International Liaison Committee on Resuscitation advised that hypothermia “may be beneficial for in-hospital cardiac arrest”2. There is no published data describing patient outcomes after therapeutic hypothermia for IHCA.

Methods

Retrospective observational data was collected (retrospectively and then prospectively) on patients treated with therapeutic hypothermia from June 2004 to August 2007. For this case series, patients included were those treated following IHCA. Exclusion criteria were unwitnessed arrest, out-of-hospital cardiac arrest, or time from arrest to hypothermia greater than six hours.

Results

Sixteen patients were treated on-protocol after IHCA. Mean age was 57.6 years. The majority had been admitted for cardiac diagnoses. Ten had chronic renal insufficiency, and five had end-stage renal disease requiring dialysis. Asystole or pulseless electrical activity was the initial code rhythm in eleven (69%). Nine (56%) survived to hospital discharge, and eight (50%) survived to discharge with a good neurologic outcome (CPC 1 or 2). Seven (44%) survived to 6 months.

Conclusions

Large studies report 15 to 20% survival hospital discharge following IHCA1. Fifty-six percent of our patients survived to hospital discharge. The majority of survivors had a good neurologic outcome. Therapeutic hypothermia should be considered for any patient who is comatose following a witnessed, acute cardiac arrest, regardless of the arrest location or initial rhythm.

References


Financial Support None