**THERAPEUTIC HYPOTHERMIA IS ASSOCIATED WITH A GOOD NEUROLOGIC OUTCOME IN PATIENTS WHO SURVIVED AN IN-HOSPITAL CARDIAC ARREST**

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Background: The role of Therapeutic Hypothermia (TH) in patients who have been successfully resuscitated from an in-hospital cardiac arrest is presently unclear. We aimed to study the effect of TH on neurologic outcome in patients who survived an in-hospital cardiac arrest.

Methods: Prospectively collected data on consecutive adult patients admitted to the cardiac intensive care unit of a tertiary care medical center from 1/1/2007 to 11/1/2010 that survived an in-hospital cardiac arrest and underwent TH were analyzed. Patients who underwent TH formed the “hypothermia” group and those patients who did not undergo TH formed the “non-hypothermia” group. The primary end-point was measured using the Pittsburgh Cerebral Performance Category (CPC) scale and patients were assessed for a good (CPC 1 and 2) or poor (CPC 3 to 5) neurological outcome prior to discharge from hospital.

Results: Of the 57 in-hospital cardiac arrest survivors, 30 patients formed the “hypothermia” group and 28 patients formed the “non-hypothermia “group. In the “hypothermia” group, 16(53 %) patients had good neurologic outcome as compared to 6 (22 %) patients who had a good neurologic outcome in the "non-hypothermia" group (P=0.007) (Figure 1). On multivariable analysis after adjustment of baseline differences between the two groups, the odds ratio for good neurologic outcome with TH was 5.10(95 % CI 1.38-18.87, P=0.015).

Conclusion: The use of TH in patients successfully resuscitated from an in-hospital cardiac arrest is associated with a good neurologic outcome.

**Figure 1.**

**Neurologic outcome (%)**

**P=0.007**

\*P < 0.05 between neurologic outcomes within group