**THE OCCURRENCE OF SHIVERING IN CARDIAC ARREST SURVIVORS UNDERGOING TARGETED TEMPERATURE MANAGEMENT IS ASSOCIATED WITH A GOOD NEUROLOGIC OUTCOME**

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Background: Neurologic outcome in patients undergoing Targeted Temperature Management (TTM) after resuscitation from cardiac arrest is diverse. We hypothesized that cardiac arrest survivors who develop shivering while undergoing TTM have better neurologic outcome than those who do not.

Methods: Prospectively collected data on consecutive adult patients admitted to a tertiary center from 1/1/2007 to 11/1/2010 that survived a cardiacarrest and underwent TTM were analyzed. Patients who developed shivering during the cooling phase of TTM formed the “shivering” group and those who did not develop shivering formed the “non-shivering” group. The primary end-point was measured using the Pittsburgh CerebralPerformance Category (CPC) scale and patients were assessed for a good (CPC 1-2) or poor (CPC 3-5) neurological outcome prior to discharge from hospital.

Results: Of the 115 cardiac arrest survivors who underwent TTM, 21/33 (64 %) patients in the “shivering” group as compared to 32/82 (39 %) patients in the “non-shivering” group had good neurologic outcome (P=0.02) (Figure 1). On logistic regression analysis, shivering (OR: 2.71, 95 % CI 0.99-7.41, P=0.04), time to return of spontaneous circulation (OR: 0.96, 95% CI 0.93-0.98, P=0.004) and non-shockable rhythm (OR: 0.25, 95 % CI 0.10-0.61, P=0.002) were independent predictors of neurologic outcome.

Conclusion: The occurrence of shivering in cardiac arrest survivors who undergo TTM is associated with an increased likelihood of good neurologic outcome.

