

## **THERAPEUTIC HYPOTHERMIA AFTER SEVERE HEAD INJURY OR CARDIAC ARREST IN OUR INSTITUTION.**

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**BACKGROUND:** Recently, several trials of therapeutic hypothermia have been shown to improve neurological outcome after ischemic brain damage, stroke or traumatic head injury. The purpose of this study was to evaluate the clinical outcome of therapeutic hypothermia in our institution.

**METHODS:** From May 2002 to March 2006, 15 patients were treated with therapeutic hypothermia, 5 after severe head injury and 10 after cardiac arrest. The eligibility criteria for therapeutic hypothermia in our institution are: (1) the procedure can be performed within 6 hours after cardiopulmonary resuscitation for ventricular fibrillation or cardiac arrest; (2) severe ischemic brain damage with a Glasgow coma scale (GCS) score of 7 or less; (3) the patient is under 60 years old. The exclusion criteria are: (1) a GCS score of 3 without light reflex; (2) the presence of malignancy, hepatic insufficiency or renal failure.

**RESULTS:** The GCS score was  $3.0 \pm 0.36$  points before treatment with therapeutic hypothermia. After therapeutic hypothermia, the score improved to  $8.7 \pm 3.2$  points. Ten patients (67%) were discharged to home, and 3 were in a vegetative state and moved to a rehabilitation facility. Two patients died. Two patients received implantable cardioverter defibrillators. The average hospitalization period was  $47 \pm 14$  days. Five of 10 (50%) cardiac arrest patients were discharged to home. No critical adverse effects of therapeutic hypothermia were seen.

**CONCLUSIONS:** Therapeutic hypothermia has the potential to improve neurological prognosis after ischemic brain damage.

**Keyword:** therapeutic hypothermia, cardiac arrest