

A STUDY ON DECOMPRESSIVE CRANIECTOMY IN MODERATE TO SEVERE HEAD INJURY PATIENTS

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ABSTRACT

Object; Decompressive craniectomy (DC) is widely used to treat intracranial hypertension following traumatic brain injury (TBI). Decompressive craniectomy performed alone or in conjunction with evacuation of the mass lesion, can reduce the raised intra cranial pressure (ICP). The present study was undertaken to analyze the factors that affects the patient's outcome, and to analyze the role of primary decompressive craniectomy and also the factors predicting the outcome.

Methods; It is a prospective analytical study; study period is from August 2009 to February 2012 in the Institute of Neurology, Madras Medical College and Rajiv Gandhi Government General Hospital, Chennai. All Patients admitted in our hospital trauma ward with moderate to severe head injury who are undergoing primary decompressive craniectomy according to brain trauma foundation guidelines are included in this study. Entry was determined using the inclusion and exclusion criteria after resuscitation, and data were entered in proforma. The

postoperative GCS and GOCS (Glasgow outcome score) at discharge from the hospital were noted, primary and secondary outcomes were analyzed.

Results; In our present study there were 136 cases underwent decompressive craniectomy, of these 90% were males and the remaining 10% were females. The most common mode of injury was road traffic accident (76%). Out of 136 patients 56 patients were survived (41%), of whom 30 patients had good recovery (22.1%), 19 patients had mild disability (14%), 4 patients had moderate disability (2.9%) and 3 patients were in vegetative state (2.2%) at the time of discharge. 80 patients died accounting for a mortality rate of 58.8%. Favourable outcome rate was 36.1% (GOS 4&5), unfavourable outcome rate was 63.9 % (GOS1,2&3).

Conclusion; The age, mode of injury, timing of surgery, clinical parameters like Glasgow coma score, associated injury, pupillary status, adequacy of bone removal and duraplasty, are important in predicting the outcome of decompressive craniectomy. A generous craniotomy and augmented duraplasty facilitating ICP reduction and better outcome of decompressive craniectomy.

Keywords; decompressive craniectomy, intracranial hypertension, traumatic brain injury.

