DECOMPRESSIVE CRANIECTOMY IN POST-IV RTPA PATIENTS – A RETROSPECTIVE STUDY

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BACKGROUND: Decompressive craniectomy increases survival in patients with ischaemic stroke. There has been little data regarding decompressive craniectomy in patients who have failed intravenous thrombolysis. Outcomes were evaluated at a University Hospital.

METHODS: Medical records were retrospectively reviewed for 226 consecutive patients who received intravenous recombinant tissue plasminogen activator (rtPA/aletplase) for thrombolysis in our institution from January 2009 to August 2015. Nine patients required neurosurgical intervention subsequently. Seven had decompressive craniectomies. Patient outcome was assessed at 90 days from operation using modified Rankin Score, ranging from 0 (no symptoms) to 6 (death).

RESULTS: Our patient age ranged from 44 to 80 years-old (mean 52 years). Pre-operative NIHSS score from 16 to 26 (mean score 20.4). None were able to achieve functional independence (mRS 0-2). Majority (85.7%) patients survived with moderately severe disability (mRS 4). One patient died in our group.

CONCLUSIONS: Our results suggest that decompressive craniectomy increased survival without severe disability in patients who are admitted with stroke and failed intravenous thrombolytic therapy. There may be indication that symptomatic intracranial haemorrhage after IV rtPA carries a higher chance of mortality. More data collection is needed to confirm the validity of this hypothesis.