



POSTER

# Decompressive craniectomies for malignant anterior circulation infarction—evaluation of in-hospital prognosis

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## Abstract

**Objective:** Analyse the in-hospital prognosis of patients submitted to decompressive craniectomy (DC) for anterior circulation malignant stroke.

**Methods:** Retrospective analysis of consecutive patients submitted to DC for anterior circulation malignant stroke, for a period of 5 years in a tertiary centre. Demographic, imaging and surgical data, as well as neurological outcome, were analysed; factors associated with in-hospital mortality were determined.

**Results:** Among 41 patients, the average age was  $57.46 \pm 12.1$  years, 56.1% were male and 53.6% had right-sided infarction. 32 of the surviving patients achieved a Rankin score  $>3$ . Mortality was 46.3%, and associated with higher ages ( $62.7 \pm 10.8$  vs  $53.4 \pm 11.8$ ;  $p=0.013$ ). Preoperative midline shift (MDS) of  $>10$  mm was predictor of mortality (OR 4.2;  $p=0.038$ ). Presence of

anisocoria was associated with 66.7% mortality versus 33.3% ( $p=0.058$ ) without its presence. No postoperative MDS was associated with 33.3% mortality versus 54.5% on those that maintained MDS ( $p=0.093$ ). Patients under 65 years old with isolated middle cerebral artery infarction (MCA) ( $n=22$ ) presented a mortality of 31.8% versus 57.8% on those that did not fulfilled one of these criteria. Mortality in patients over 65 years old reached 77.8%, with all survivors presenting an isolated MCA infarction. On the subgroup of patients with more than one ischemic territory and under 65 years, the mortality was 40% (versus 100% over 65 years), with only one patient reaching Rankin score  $\leq 3$ .

**Conclusion:** Age and preoperative midline shift were associated to in-hospital mortality. Patients  $>65$  years and/or  $>1$  ischemic territory presented the worst prognosis.

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