DESTINY II: DEcompressive Surgery for the Treatment of malignant INFarction of the middle cerebral arterY II.

Patients with severe space-occupying – so-called malignant – middle cerebral artery infarcts have a poor prognosis even under maximum intensive care treatment. Randomised trials demonstrated that early hemicraniectomy reduces mortality from about 70% to 20% without increasing the risk of being very severely disabled. Hemicraniectomy increases the chance to survive completely independent more than fivefold and doubles the chance to survive at least partly independent. Only patients up to 60-years have been included in these trials. However, patients older than 60-years represent about 50% of all patients with malignant middle cerebral artery infarcts. Data from observational studies, suggesting that older patients may not profit from hemicraniectomy, are inconclusive, because these patients have generally been treated later and less aggressively. This leads to great uncertainty in everyday clinical practice. To investigate the efficacy of early hemicraniectomy in patients older than 60-years with malignant MCA.
DEcompressive Surgery for the Treatment of malignant INfarction of the middle cerebral arterY II is a randomised controlled trial including patients 61-years and older with malignant middle cerebral artery infarcts. Patients are randomised to either maximum conservative treatment alone or in addition to early hemicraniectomy within 48 h after symptom onset. The trial uses a sequential design with a maximum number of 160 patients to be enrolled (ISRCTN 21702227). In the face of an ageing population, the potential benefit of hemicraniectomy in older patients is of major clinical relevance, but remains controversial. The results of this trial are expected to directly influence decision making in these patients.