

## JOINT MEETING OF THE PULA CONGRESS WITH ALPS-ADRIA NEUROSCIENCE SECTION: QUALITY OF LIFE IN NEURODEGENERATIVE DISORDERS

### QUALITY OF LIFE AFTER HEMICRANIECTOMY IN MALIGNANT MCA INFARCTIONS: NEUROSURGEON'S VIEW

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Malignant infarction of the middle cerebral artery is a life threatening disease associated with progressive space occupying brain oedema that causes an increase in intracranial pressure with subsequent brain herniation and death. As medical therapy is of limited value in many of these cases decompressive hemicraniectomy (DH) has been suggested as a life saving approach in this condition. Remaining neurological deficit in the survivors is usually severe, which raises the questions whether and in which patients this procedure should be performed.

The data of three prospective randomized European trials [1] have confirmed the reduction of mortality in space occupying infarction by DH. In the pooled analysis of these trials survival increased with DH from 29% to 78% ( $p < 0.0001$ ). Absolute risk reduction was 49%, which means a number needed to treat of two patients to save one life. The data also show that the number of patients in a vegetative state (modified Rankin scale 5) did not increase; however the number of patients dependent on other persons (mRS 4) increased more than ten times.

Concerning the quality of life of these patients the number of studies addressing this issue is very limited, which does not allow drawing any conclusions. Most patients suffer from a reduced quality of life, depression and a severe impairment in their social life. Despite that fact, many of them would retrospectively agree to undergo surgery again.

Nevertheless, with the knowledge of an increasing number of severely disabled and dependant survivors after DH the indication for surgery should be made following strict limitations with age being the most important factor to be considered. As functional outcome in elderly patients is bad, they should not undergo surgery.

#### References

- 1 VAHEDI K, HOFMEIJER J, JUETTLER E, VICAUT E, GEORGE B, ALGRA A, AMELINK GJ, SCHMIEDECK P, SCHWAB S, ROTHWELL PM, BOUSSER MG, VAN DER WORP HB, HACKE W. Early decompressive surgery in malignant infarction of the middle cerebral artery: a pooled analysis of three randomised controlled trials. *Lancet Neurol* 2007; 6: 215-222.