

Microsurgical Treatment of the Interhemispheric Arteriovenous Malformations

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Abstract

From a total of 364 patients who underwent surgery for AVMs, 46 (12.63%) had lesions located interhemispherically. The majority of patients have entered the 4th and 5th age decade. The youngest operated patient was 18 years old and the oldest was 64. The most frequent clinical signs encountered were headaches (13 - 28.2%), epilepsy (21 - 45.65%), motor deficits (12 - 26.08%), sensitivity disorders (8 - 17.39%), speech disabilities (4 - 8.69%), visual field deficits (3 - 6.52%), mental disorders (5 - 10.85%) and alteration of consciousness (4 - 8.69%). The initial imagistic examination consisted of a noncontrast computed tomographic scan, followed by a magnetic resonance angiography (MRA) and a digital subtraction angiography. We included the 46 patients into the Spatzler-Martin scale based on the location, the proximity to the eloquent areas, as well as on the type of the venous drainage. Next we show the number of patients included in every grade of the scale. Grade I - 7 (15.21%) patients, Grade II - 17 (36.95%) patients, Grade III - 19 (41.30%) patients and Grade IV - 3 (6.52%) patients. An interhemispheric surgical approach was used for these AVMs. Excellent and good postoperative results have been obtained in 37 (80.43%) patients, fair results in 5 (10.86%), poor in 2 (4.34%) and 2 (4.34%) patients have died. One of the 2 deaths was caused by a haematoma in the bed of the AVM and the other was caused by a pulmonary embolism.

Key words: brain, interhemispheric arteriovenous malformation, corpus callosum, microsurgical resection

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