

## **MICROSURGERY AND OUTCOME IN 277 BRAIN AVMs, A COMMON CAUSE OF HEMORRHAGIC STROKE IN YOUNG PEOPLE**

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*Introduction:* Brain arteriovenous malformations (AVMs) are the main cause of hemorrhagic stroke in young people.

*Material and methods:* We performed a retrospective study including patients with brain AVMs operated between 1999 and 2014, in Clinic of Neurosurgery, Emergency Clinical Hospital Bagdasar-Arseni.

*Results:* In our clinic, 277 patients with brain AVMs underwent surgery. Mean age was 29.82 years. Hemorrhagic stroke was the most common form of onset, 195 patients presented with ruptured AVMs and 86 cases presented with seizures. Forty five patients (16.25%) had grade I Spetzler-Martin, 100 patients (36.10%) grade II, 81 patients (29.24) grade III, 39 patients (14.08%) grade IV and 12 patients (4.33%) grade V. Total resection was possible in 228 cases (82.31%). Motor deficits and altered mental state were more frequently found in the group of patients with intracranial hemorrhage. After surgery, modified Rankin Score improved in 202 patients (73%), remained unchanged in 41 (15%) and worsened in 34 patients (12%) (Wilcoxon test  $p=0.000$ ,  $Z=-9.248$ ). Short term morbidity was 37%. Long term outcome was favorable 241 patients (86.7%). Mortality was 6.1%.

*Conclusions:* Onset with hemorrhagic stroke is common in brain AVMs. Microsurgery is the treatment of choice in AVMs. Outcome is favorable, following surgery.

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