

SUPRATENTORIAL CAVERNOUS MALFORMATIONS: CHOICE OF TREATMENT

V.Smolanka, A.Smolanka
Uzhhorod National University, Uzhhorod, Ukraine
v.smolanka@uzhnu.edu.ua

Background. 80% of cavernous malformations of central nervous system are localised above the tentorium. They can present with seizure, haemorrhage and headache. The most frequent symptom is seizure, which is seen in 40-80% of cases.

Methods. A total of 55 patients with supratentorial cavernous malformations were treated between November, 2011 and October, 2016. Male to female ratio was 2:3. Mean age of the patients was 38.6 years. 32 patients presented with seizure (58.2%), in 16 cases the symptoms were caused by extralesional haemorrhage (29.1%), 5 patients presented with a headache (9.1%) and in 2 cases the lesion was asymptomatic (3.6%). Surgery was performed in 49 cases (89.1%). Postoperative follow up was of 26 to 75 months (mean 53.5 months).

Results. Patients with epileptogenic cavernomas were divided into two groups: with rare seizures - 14 cases (43.8%); and chronic epilepsy - 18 cases (56.2%). Outcome was assessed according to Engel scale: Engel I - 22 (73.3%), Engel II - 4 (13.3%), Engel III - 3 (10%), Engel IV - 1 (3.3%). The subgroup analysis showed that excellent outcome was achieved in patients with rare seizures - 100% seizure-free (Engel I). Negative prognostic factors were preoperative secondary-generalised seizures and drug-resistant epilepsy. Cavernous malformations which manifested with extralesional haemorrhage presented with focal neurological deficit or symptoms of increased ICP. They were removed in subacute stage of the haemorrhage. Only one patient deteriorated postoperatively (6.3%). Patients with headaches improved postoperatively - mean headache severity on VAS dropped from 7.6 to 2.5.

Conclusions. Surgical treatment of supratentorial cavernous malformations is safe (morbidity/mortality - 2%) and effective in management of various presenting symptoms (86.6% Engel I+II, 93.3% improvement in neurological status, 100% relief in headache severity).