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Sylvian fissure arachnoid cysts in children – Operative treatment

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The presented study is retrospective statistical analysis on operative treatment of Sylvian fissure arachnoid cysts in children. The analyzed group was composed of 22 females and 58 males hospitalized in the Neurosurgery Department of Research Institute of Polish Mother's Memorial Hospital in Lodz between year 1995 and 2012. In the investigated group 48 patients were operated on. Regarding the type of arachnoid cysts according to Galassi's Scale the operated group consisted of 26 patients with Galassi III, 19 with Galassi II and 3 as Galassi I arachnoid cyst. Major indications for operative treatment were seizure in 10 cases, headaches in 19 cases, increased head circumference in 12 cases and focal neurological signs 11 cases. Other minor indications were: visual disturbances, psychomotor retardation and spontaneous subdural haematomas. As the first choice of operative treatment neuroendoscopy was performed in 41 patients, craniotomy in 5 and shunt implantation in 2. 18 children needed more than one surgical intervention. In 25 cases one neuroendoscopic procedure was sufficient, in another 4 additional neuroendoscopic procedure was necessary. Radiological improvement was obtained in 26 cases after neuroendoscopic treatment, in 3 cases after craniotomy and in 1 case after shunt implantation. Clinical improvement was observed in 28 cases after neuroendoscopic treatment, in 1 case after craniotomy and in 1 case after shunt implantation. There was no statistically important difference between effectiveness of microsurgical and neuroendoscopic procedures in treatment of arachnoid cysts, but microsurgical procedures were far more aggravating for the patient and came with higher blood loss during operation. The highest rates of clinical complications were connected with shunt implantation (2 cases) and neuroendoscopic treatment (21 cases). There were no clinical complications after microsurgical procedure. In the most of cases the final neurological state was excellent.