FP15

Results of surgical treatment of symptomatic cysts of lateral fissure in children
Vasiliy Evgenievich Danilin¹, German Vladimirovich Letyagin¹, Vidgai Maisovich Djafarov², Sergey Afanasievich Kim¹, Michail Evgenievich Amelin¹, Anna Alekseevna Sysoeva¹
¹Novosibirsk Center of Neurosurgery, Ministry of Health Care of Russian Federation, Novosibirsk, Russian Federation
²A.I. Evdokimov Moscow State University of Medicine and Dentistry, Ministry of Health Care of Russian Federation, Moscow, Russian Federation

Introduction: The study aims to analyze the clinical and radiological results of treating arachnoid cysts of lateral fissure, which present a frequent pathology accounting for 30-50% of all brain arachnoid cysts. At present, the strategy of surgical treatment is controversial. For a long time, treatment included both microsurgical and shunt operations, however, in modern neurosurgery many authors prefer endoscopic techniques or endoscopic-assisted microsurgery. Determining the indications for intervention also remains disputable. Some authors tend to believe that “preventive” surgery of asymptomatic arachnoid cysts of lateral fissure with minimal clinical manifestations is also debatable.

Methods: 22 pediatric patients underwent surgery at Novosibirsk Center of Neurosurgery from 2013 to 2015. The age of patients ranged from 2 months to 17 years (mean age at surgery was 5.6 years). Subsequent control of the dynamics of the clinical picture, the results of the MRI examination of the brain took place at intervals of 3 to 6 months. Catamnesis ranged from 3 months to 2.9 years (mean duration 1.5 years). To perform control functions stoma MRI brain MRI with routine thin sections complementary sequence in the Steady-state constructive interference with a slice thickness of 0.8 mm (with sections located at the level of the stoma) and IR (inversion recovery) modes. CT also used high-resolution brain with reconstructed slice thickness of 0.6 mm, followed by the construction of multiplanar reformations.

Results: Successful interventions by using mostly an endoscopic approach were carried out in 18 (81.8%) patients resulting in regression of clinical symptoms. A positive effect was not achieved in 4 (18.1%) patients with primary endoscopic cysto-cisternostomy who required additional operations.

Conclusion: Endoscopic fenestration in our series is a safe, effective and minimally invasive procedure of the first stage of treatment in patients with a symptomatic arachnoid cyst of lateral fissure.