## МАТЕРИАЛЫ КОНФЕРЕНЦИИ И ШКОЛЫ

# NEUROINFLAMMATION IN TEMPORAL LOBE PHARMACORESISTANT EPILEPSY

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Neuroinflammation, as shown by modern research, plays a significant role in epileptogenesis and the development of resistance to antiepileptic treatment. Inflammatory responses of cellular immunity in epileptic foci remain poorly studied. The aim of the study was to study the nature and severity of lymphocytic infiltration in epileptic foci in pharmacoresistant epilepsy. Was performed immunohistochemical reactions with antibodies to CD45 (leukocyte common antigen), CD3 (T-lymphocytes), CD8 (T-killer cells, whose presence indicates active inflammation), CD20 (B lymphocytes), CD68 (macrophages) (DAKO, Denmark) in sections of fragments of the temporal lobe in epileptic foci removed in the surgical treatment of pharmacoresistant epilepsy from 11 patients, including 5 women, 6 men aged from 19 to 55 years (mean age 34 years) with epilepsy from 2 to 15 years. The comparison group consisted of fragments of the temporal lobe of the brain from 5 deceased (3 men, 2 women) without epilepsy at the age of 40 to 67 years (average age 54). The localization of immunocompetent cells (cortex, white matter, around blood vessels) was evaluated, cell counts, and statistical analysis were performed. Microglial cells were verified using CD45 in all 11 cases with a significant difference from the comparison group. Expression of CD3 was determined in 65% (9) cases, CD8 – in 20% (5 cases), CD20 – 6% (3 cases), CD68 – 9% (3 cases). In the comparison group, CD3-cell reaction was detected in 2 out of 5 cases. Thus, lymphocytic infiltration and microglial reaction in pharmacoresistant epilepsy are significantly pronounced. We found that the main role in lymphotacytic infiltration is played by T-lymphocytes, including T-killers, as well as B-lymphocytes, macrophages, which indicates the active participation of cellular immune responses in the pathogenesis of epilepsy, which definitely affects the progression of the disease.

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