

RISK FACTORS FOR THE DEVELOPMENT OF SYMPTOMATIC EPILEPSY IN PATIENTS DIAGNOSED WITH STROKE

Biljana Živadinović^{1,2,}, Aleksandra Lučić Prokin^{3,4},
Jelena Živadinović⁵, Aleksandar Stojanov²*

1University of Niš, Faculty of Medicine, Department Neurology, Niš, Serbia

2University Clinical Center Niš, Clinic of Neurology, Niš, Serbia

3University of Novi Sad, Faculty of Medicine, Novi Sad, Serbia

4University Clinical Center Vojvodina, Clinic of Neurology, Novi Sad, Serbia

5University Clinical Center Niš, Clinic of Anesthesiology and Intensive Care, Niš, Serbia

Contact: Biljana Živadinović
Faculty of Medicine, University of Niš
81 Dr. Zorana Djindjića Blvd.
18000 Niš, Serbia
Tel: +381631094548
E-mail: biljana.zivadinovic@medfak.ni.ac.rs

Stroke is one of the leading causes of mortality in older population. Little less than 50% of patients with stroke remain with different degrees of disabilities and consequences. Symptomatic epilepsy (PSE) is one of them. The aims of the study were to determine the frequency of PSE in the group of examinees, the difference in the frequency of PSE in the ischemic stroke and intracerebral hemorrhage (ICH) group, the influence of the size and location of the lesion, as well as the influence of comorbidity on the occurrence of PSE.

This prospective study analyzed patients with the first stroke of ischemic and hemorrhagic genesis with the follow up period of two years.

Out of the total of 536 patients, 267 patients (aged 47–92) who had the first stroke, were analyzed. In the control group (n = 246), PSE did not develop after stroke, and the other group (n=21) included patients who had PSE. Cortical and subcortical lesions had a statistically significant (p < 0.05) influence on the development of epileptic seizures after stroke. A statistical significance between the size of the lesion as well as the type of stroke and PSE was not determined. The combination of cardiovascular and pulmonary disease was statistically significantly more often associated with the development of PSE after stroke (p < 0.05).

The frequency of PSE in the examined group was 7.86%. Younger age, as well as cortical and subcortical lesion, was shown to be statistically significant for the occurrence of PSE. The presence of cardiac and pulmonary disease significantly increases the risk of PSE. Although the significance of ICH and big lesion for the onset of PSE has been described in the literature, we have not found statistical significance regarding their impact on PSE occurrence in our experimental group of patients. *Acta Medica Medianae* 2023;62(1):5-14.

Key words: risk factors, epilepsy, stroke