Symptomatic epilepsy in acute stroke and chronic phase of stroke

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INTRODUCTION: Stroke is a common cause of symptomatic epilepsy. It can occur in the acute phase, or months, or even years after stroke (in the chronic phase). We investigated the characteristics of epileptic seizures, types and localizations of strokes that led to it in the patients hospitalized in University Hospital Centre Rijeka.

MATERIALS AND METHODS: We identified 37 women and 27 men hospitalized in the period from January 1st 2013 to March 13th 2015 at the Department of Neurology, University Hospital Centre Rijeka, diagnosed with symptomatic epilepsy after stroke. We analyzed their medical records in order to determine at which phase of stroke epilepsy appeared, whether it was an ischemic or hemorrhagic stroke, where the lesion was localized according to the findings of CT, and whether seizures were partial or generalized.

RESULTS: In 26 female and 13 male patients epilepsy occurred in the acute stage of stroke (in most of the cases changes were not detected by CT or have been localized in the irrigation area of ACM), while in 11 female and 14 male patients occurred in the chronic phase (CT scans mostly showed changes in the irrigation area of ACM or basal ganglia), 7 months - 10 years after stroke. 20 men and 22 women had partial seizures, generalized seizures occurred in 9 women and 7 men, and one female patient had both types of seizures. In 5 female patients seizure type was not mentioned in the documentation. All the men suffered from ischemic stroke, while women in 28 cases had ischemic, and in 9 cases hemorrhagic stroke.

CONCLUSION: Our results show that it is possible that localization of stroke has an influence on the incidence of symptomatic epilepsy. Partial seizures appear in the most patients of both sexes, both in acute and in chronic phase of stroke.

Keywords: stroke, symptomatic epilepsy, CT