Atrial fibrillation and other cardiovascular diseases as risk factors for stroke

INTRODUCTION: Cerebrovascular insult is defined as the loss of brain function due to a disturbance in the blood supply to the brain. This disturbance is due to either ischaemia or hemorrhage. Risk factors for stroke include old age, hypertension, previous stroke, diabetes, high cholesterol, tobacco smoking and atrial fibrillation (AF). Hypertension is the most important modifiable risk factor of stroke. About 87% of strokes are ischemic, the rest are hemorrhagic.

GOAL: The aim of this study is to determine the frequency of AF and other cardiovascular diseases (CVD) in patients with stroke.

PATIENTS AND METHODS: We retrospectively evaluated the histories of patients admitted to Neurology Department in Travnik Hospital with acute stroke during the one-year period (May 2013-May 2014). In each patient a neurological examination was performed, with CT of the brain to confirm stroke and cardiology examination.

RESULTS: A total of 451 patients (mean age 70.15 ± 9.996 years) with confirmed stroke or TIA were treated. Out of these 83.6% of patients were with ischemic stroke 12.9% with hemorrhagic and 3.5% patients with hemorrhagic transformation. There were 49.4% male and 50.6% female patients. The most common risk factor was hypertension, found in 82% of patients. Diabetes mellitus was noted in 33.7% patients, AF in 21.5% patients. 23.1% had the previous history of ischaemic heart disease and other CVD. Among all patients, 23.3% died within 7 days of the onset of the symptoms. In the group of the patients with AF the mortality rate was significantly higher (45.4%) than in the group without AF (17.2%) (p<0.0001).

CONCLUSION: Heart rhythm disturbances, AF increase the risk of onset and recurrence of embolic stroke. Timely detection of cardiac arrhythmias as well as hypertension and other risk factors and their appropriate treatment can help to prevent the onset of stroke and thus significantly reduce the number of disabled persons and the cost of treatment making the life in the third age better.

LITERATURE