Abstract

Stroke is a significant cause of morbidity and mortality in the developed world. In the theoretical part of the thesis, we try to summarize the overall knowledge of stroke, the definitions and the general approach to the diagnosis and treatment, with a focus on ischemic stroke. Furthermore, the issue of acute phase treatment and secondary preventive treatment of ischemic stroke is reviewed and the modalities of the subsequent neurological deficit evaluation, the occurrence of mood disorders and the assessment of the quality of life of individuals after stroke are discussed.

Our research aimed to assess the perspective of ischemic stroke patients admitted to the hospital. The first part is focusing on the mortality of patients with ischemic stroke in the period 2003-2019 in the Westbohemian region and its relation to secondary prevention. The second part aims to identify the main clinical and psychosocial factors affecting the quality of life of chronic stable post-stroke patients after their first in-life episode of stroke. The relation of poor quality of life indicators, mortality and conventional cardiovascular risk factors is prospectively assessed.

The mortality of patients after first-in-life ischemic stroke hospitalization the years 2003-2019 is higher compared to worldwide trends. In the group of 9,076 patients (average age 71,8 years, 51,9% men), hospitalization mortality (case-fatality) was 9.1%, thirty-day mortality 14.2%, one-year mortality 28.4% and five-year mortality (in part of the sample 2003-2015) 49.8%. In total, 5583 patients died during follow-up. In the comparison of the mortality risk over 4 longer periods (2003–07, 2008–11, 2012–15, and 2016–19), no significant changes were found in in-hospital mortality, 30-day, 1-year, or 5-year mortality. As expected, each decade of patient age was associated with about twice the risk of death. Furthermore, the study shows a trend of improvement in the care of patients in the acute phase, the indication for the administration of intravenous thrombolytic treatment increased significantly during the monitored period. However, the benefit of this treatment was evident only in the first year resulting in decreased mortality. In the five-year follow-up the effect of intravenous thrombolytic treatment on mortality is neutral.

In the second part the psychosocial aspects are evaluated in the group of 341 (mean age 69 years) stabilized patients after the first in-life ischemic stroke episode. Quality of life was assessed using the standardized SF-36 questionnaire method and the HADS (Hospital

Anxiety Depression Score) scoring system, as well as other risk factors and biochemical indicators. We identified anxiety, depression (HADS score ≥11), BNP level ≥150 ng/ml, residual motor deficit, Rankin score ≥4 at the time of discharge from hospitalization as the most important factors of impaired quality of life set as SF-36 score (≤ 40). The five-year overall mortality was 25.8%. Our work shows the possible significance of a low SF 36 score (≤ 40) as an independent mortality factor.