

liver enzymes or creatine kinase recorded, neither during nor after hospitalization. Ten patients could function independently and perform daily activities, with minor or more serious motor problems, while one patient needed help during movement. Upon release from the hospital, all patients took routine laboratory tests, including among other things liver enzyme values and creatine kinase. All tests showed normal values, and thus there was no need to terminate the Atorvastatin (Atorvox) therapy.

Conclusions: Analysis of recorded cases during the urgent ICV treatment, regardless of the etiology (ischemic or hemorrhagic) showed that early Atorvastatin administration, practically immediately upon insult, in a maximum one-off daily dose of 80 mg is safe from the aspect of increase in liver enzyme values. Thus, there were no cases of hepatotoxicity related to myolysis cases recorded in literature, and creatine kinase was observed.

The observed group was relatively small and the observance period too short, and thus the total assumed effect, given the pharmacological effects, could not be fully evaluated.

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Response to negative feedback in poststroke depression

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Introduction/Objectives: Several studies (e.g., Beats, Sahakian, Levy, 1996; Elliott et al., 1997) report a "catastrophic response to perceived failure" as a specific motivational deficit in depressive patients.

Participants, Materials/Methods: In an attempt to identify potential (dis)similarities between poststroke and primary ("purely psychiatric") depression, we administered, offering appropriate feedback, three cognitively demanding tasks (Stroop Word-Color Test, Wisconsin Card Sorting Test, Tower of London Test) to several groups of intellectually intact subjects: poststroke ($n = 32$) and primary ($n = 32$) unipolar depressives (based on DSM-IV criteria) and non-depressive control aged subjects with ($n = 31$) or without ($n = 33$) stroke (all groups being equivalent in respect to the main relevant psycho-demographic variables). The data were analysed using the common statistical procedures.

Results: The results showed in both groups of depressives (relative to non-depressives) a similar significantly raised probability of failure to subsequent problems following a failure on a given one. There were not enough subjects in order to obtain statistically significant data to correlate the frontal lobe location of the stroke and such response to negative feedback in poststroke depressives.

Conclusions: These results suggest a remarkable similarity of poststroke and primary unipolar depression. Moreover, they might offer an explanation for the classical (Goldstein, 1939) "catastrophic reaction" reported in brain lesioned subjects.

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Distorted cognitive schemas of self and the world in poststroke depression

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Introduction/Objectives: A debate persists on whether major depression following stroke is in any way different from the primary ("purely psychiatric") depression.

Several studies suggest that dysfunctional cognitive schemas of self and the world (with a deeper dependence of self-worth on the evaluation of others and on the estimated success of own performance) characterize primary depression thinking.

Participants, Materials/Methods: In order to figure out if this is the case with the poststroke depression too, we administered the Sentence Completion Task (as conceived by Teasdale et al., 1995) alongside the classical Self-Esteem Scale (of Rosenberg, 1963, 1965) and common scales for depression (including Beck's and Hamilton's) to poststroke ($n = 31$) and primary ($n = 32$) unipolar depressives (based on DSM-IV criteria) and to control non-depressive subjects with ($n = 31$) or without ($n = 33$) stroke (all groups being equivalent in respect to the main relevant psycho-demographic variables).

Results: The analyses of the data using common statistical procedures showed a large similarity of dysfunctional answers between the two groups of depressed patients (as opposed to the non-depressed group), suggesting that the same type of distorted cognitive schemas is operating in each form of depression. Moreover, at follow-up, the success of pharmacological treatment (proved by the decrease of the levels of depression on specific scales) seems to be associated in both clinical groups with a return to more functional (realistic) cognitive models of self and the world.

Conclusions: These results plead for the similarity of poststroke and primary unipolar depression.

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Alternations of level of consciousness in acute stroke

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Introduction: Alternations of level of consciousness, which comprises deficient arousal, stupor, and rarely deep coma, is frequent at the acute stroke.

Objectives: To determine the frequency of alternations of level of consciousness in acute stroke and its association with certain laboratory findings.

Patients and methods: We retrospectively analyzed 249 patients with acute stroke at the Department of Neurology, University Clinical Center Tuzla, in the period from 1st July to 31st December 2008. The stroke was confirmed in all patients by computerized tomography within 24 hours after hospitalization. According to the type of stroke, patients were divided into two groups: ischemic and hemorrhagic. Assessment of alternation of level of consciousness is performed by Glasgow Coma Scale¹ and National Institute of Health Stroke Scale² immediately after admission. Blood tests (sedimentation, leukocytes, glucose, potassium, natrium, urea, creatinine) were done within first 12 hours after admission.

Results: Alternation of level of consciousness in acute stroke had 64 patients (25.7%). Somnolence was more frequent comparing to sopor and comma (56.2% vs. 17.2% vs. 26.6%, $P = 0.0003$). Patients with hemorrhagic stroke had statistically significant more often alternations of level of consciousness comparing to patients with ischemic stroke (53.1% vs. 19%, $P < 0.0001$). Patients with alternations of level of consciousness in acute stroke had statistically significant pronounced leukocytosis, hyponatremia, elevated urea and creatinine ($P < 0.02$).

Conclusion: In a quarter of patients with acute stroke alternations of level of consciousness occurred, primary considering somnolence, more often in hemorrhagic stroke. These

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alternations of level of consciousness in acute stroke appear to be associated with pronounced leukocytosis, hyponatremia, elevated urea and creatinine.

Key words: alternations of level of consciousness, stroke

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Outcome of acute rehabilitation after stroke

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Introduction/Objectives: The aim of this research was to identify the outcome of the acute rehabilitation after the stroke and to analyze a degree of recovery in certain age groups.

Participants, Materials/Methods: Our retrospective analysis included 517 patients treated after the first stroke at Department for physical medicine and rehabilitation in Bizovac, University Hospital Osijek, Croatia in 2005 and 2006.

Results: Average value of BI in all examinees at the beginning of rehabilitation was 52.99 and in the end it was 65.77. Average Delta value of improvement level was 12.78. 15 patients suffered the first stroke at the age less than 44, average BI value at admission was 69.4 and 78.4 at discharge, while Delta value was 9.0. In the age group 45–54 years there were 56 patients, average BI value at admission was 62.7 and 75.82 at discharge, while Delta value was 13.25. In the age group 55–64 years there were 77 patients, average BI value at admission was 55.81 and 68.57 at discharge, while Delta value was 12.92. In the age group 65–74 there were 202 patients, average BI value at admission was 51.23 and 64.26 at discharge, while Delta value was 13.2. In the age group 75–84 years there were 158 patients, average BI at admission was 49.69 and 62.34 at discharge, while Delta value was 12.6. In the age group over 85 years there were 9 patients, average BI value at admission was 34.44 and 49.22 at discharge, Delta value was 14.77.

Conclusions: After conducted acute rehabilitation in all age groups significant recovery of functional deficit was obvious as well as improvement in everyday living activities. Average value of Barthel Index at the admission to the rehabilitation was at the level of severe dependence in all age groups while at the discharge all patients showed improvement and were placed in the group of medium dependence. The value of Barthel Index decreased with age while functional recovery, which was expressed through Delta value, was equal in all age groups. The highest degree of dependence was noticed in patients who were 85 year old or more and one remained the same.

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Correlation between extra-cranial and transcranial Doppler in evaluation of ischemic stroke

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Introduction/Objectives: Disorders of intracerebral hemodynamic as a result of atherosclerotic and arteriosclerotic changes are

frequent cause of ischemic–thrombotic CVI. Goal is to present correlation of extra cranial and transcranial Doppler in case of already developed ischemic CVI.

Participants, Materials/Methods: In this study we analyzed 96 patients with ischemic CVI, according to thrombosis type, confirmed with CT scan.

Results: Patients' age ranged from 45 to 76 years, with 58 women and 38 men. Among risk factors, hypertension was present in 87%, Diabetes 32%, hyper lipids in 29%, and smoking in 92% of patients. In the acute phase of CVI, with TCD method we recorded hypo perfusion in 79% of cases, and extra cranial color Doppler indicated narrowing of ACI above 50% and expressed atherosclerotic changes among 42% of patient, while in 18% ACI narrowing is not found up to 30% and in remaining 28% was without stenosis changes. In 3 cases there was a complete occlusion of ACI (2 on the right and 1 on the left side), and neurology deficit was from very mild to mild hemiparesis.

Conclusions: Disorder of hemodynamic in intracranial part is not in complete correlation with the extra carotid part of circulation.

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Functional diagnostics of reading difficulties in dysphasic adults

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Introduction/Objectives: Dysphasia is one of speech disorders in which there is impairment of the power of expression by spoken language, writing, or signs, or impairment of the power of comprehension of spoken or written language. Functional diagnostics of such patients is directed to the positive rehabilitation outcome. The objective of this study was to present the minimal diagnostic program for reading disabilities in patients with sensorimotor dysphasia.

Participants, Materials/Methods: Ten patients aged 40–80 were tested. Control group consisted of 10 healthy persons matched by age, gender and non-verbal status.

Complete diagnostic evaluation was performed included ophthalmological, otoneurological, evoked auditory and visual potentials, logopedic, psychological and psychiatric evaluation.

Results: The results show the positive correlation between:

1. Auditory synthesis and analysis results and auditory brainstem potentials findings,
2. Vasomotor function results and visual evoked potentials.

Conclusions: Minimal functional diagnostic program for dysphasic patients with reading difficulties must consist of neurological, logopedic and psychological testing. According to the results of psycholinguistic abilities evoked potentials testing (auditory and/or visual one) will be done for the rehabilitation purposes.

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Dysphagia in Huntington's disease – a course analysis

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Introduction/Objectives: Chorea Huntington (HD) is a neurodegenerative genetic disorder with psychiatric symptoms. The most patients die because of aspiration pneumonia which is the follow of dysphagia.