

Background: Existence of dual routes in brain is an undisputed phenomenon in processing alphabetic scripts (English, German etc.). However considering the orthographic nature of non-alphabetic scripts such as Korean Hangul, Kannada (Indian semi-syllabic script) etc., the functional presence of dual routes is debatable. Analysis of reading-writing performances of persons with acquired central alexias-agraphias subsequent to stroke offers insights on the nature of processing semi-syllabic orthography.

Objective: We aimed at deciphering the way semi-syllabic orthography is processed in our brain by testing the: existence of dual routes in reading-writing semi-syllabic orthography and applicability of popular dual route cascaded (DRC) model (Coltheart, Rastle, Perry, Ziegler, & Langdon, 2001) to semi-syllabic scripts.

Patients and Methods: Patient and institutional review board approval were obtained. Persons with acquired lesions to core perisylvian brain areas following cerebro-vascular accidents performed reading-writing tasks involving words and non-words in Kannada. Error analysis of their responses was carried-out.

Results: Two patients demonstrated 'surface agraphia' and are evocative of the brain's over-reliance on sub-lexical strategy. Such rare cases constitute a strong evidence for dual routes in semi-syllabic orthography (Krishnan, Tiwari & Kiran, 2013). Three patients manifested phonological alexia. This substantiates the functional lexical route owing to the impaired sub-lexical route.

Conclusion: Our findings validate the neuro-anatomical representations for language to be universal despite the diverse nature of individual orthographies. Cases are supportive of dual-routes even in semi-syllabic orthography. Study in-turn respects the idea that dual route models developed principally on grounds of alphabetic orthographies are applicable even for the non-alphabetic scripts.

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1325

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Stroke

The relationship between prognosis and serum chemerin levels in acute ischemic stroke patients

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Background: Chemerin plays a role in angiogenesis, osteoblastogenesis, myogenesis and glucose regulation. In the literature, there are limited number of studies that examined the relationship between serum chemerin levels and atherosclerosis. The present study investigated the relationship between prognosis and serum chemerin levels of acute ischemic stroke patients.

Material and Methods: To evaluate the serum chemerin levels, blood samples were taken within 1st and 7th days, and after 3rd months in the patient group. The people without any stroke were selected as controls. Prognosis was evaluated with National Institutes of Health Stroke Scale (NIHSS) and modified Rankin Scale (mRS) scores.

Results: The chemerin level of the patients was higher than the control group and p values were 0,025, 0,001, 0,0001 respectively. The first average of serum chemerin levels was statistically significantly lower than in the 3rd month levels ($p = 0,034$). Statistically significant positive correlation was observed between the initial values of chemerin and insulin levels ($r = 0,322$ $p = 0,023$). When ROC analysis was done for the levels of chemerin, the increase were shown not to be sufficient for diagnosis. No statistically significant correlation was observed between serum chemerin levels and NIHSS or mRS scores.

Discussion: Previous experimental and clinical studies showed a relationship between the atherosclerosis and serum chemerin levels. Similarly, our findings suggested that the serum levels of chemerin might be related with atherosclerotic process and/or oxidative stress associated with brain damage occurring after stroke.

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1326

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Stroke

Endovascular treatment of ischemic stroke patients with symptomatic occlusion of basilar artery

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Objective: The aim of our retrospective study was to assess the safety and efficacy of combined revascularization therapy including initial intravenous thrombolysis (IVT) followed directly by a mechanical thrombectomy and compare the results with IVT alone and with combined thrombolysis (IVT + intra-arterial thrombolysis, IAT) in acute ischemic stroke (AIS) patients with basilar artery occlusion (BAO).

Methods: Study set consisted of consecutive AIS patients with BAO, who were treated with standard IVT and mechanical thrombectomy using a stent retriever without waiting for any clinical or radiological improving during IVT. The results were compared with historical controls treated with IVT alone or with combined IVT + IAT. Stroke severity was assessed by NIHSS. Recanalization was scored using TICI scale and clinical outcome using mRS scale; good outcome was scored as 0-3.

Results: Seventeen patients of median age 64 years were treated with combination of IVT and mechanical thrombectomy. A baseline median NIHSS score of patients was 14. The median time from stroke onset to intervention was 180 minutes. Recanalization was achieved in 15 (88 %) patients and good 3-month clinical outcome was in 11 (65 %) patients. No intracerebral hemorrhage occurred. These patients had significantly higher recanalization rate and better outcome than patients treated with IVT alone or with IVT + IAT ($p=0.024$, $p=0.006$).

Conclusion: Combined revascularization using IVT and stent retriever is safe and effective in AIS patients with BAO. Patients treated with this approach had significantly higher recanalization and better outcome than patients treated with IVT or IVT + IAT.

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1327

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Stroke

Case report: caudate stroke simulating transient global amnesia

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A 50-year-old white male with a prior history of hypertension arrived at the emergency room, accompanied by his wife, who claimed he had presented an acute onset of disorientation to place and time, but not to person. He also showed anterograde memory loss, asking the same questions several times. Recently, he had been stressed by some family issues. There were no abnormal findings during neurological examination and laboratory and CT scan studies were normal. On his third day of