THE STUDY OF POSSIBLE NEUROPROTECTION MECHANISM OF CEREBROLYSIN

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Abstract: Cerebrolysin can improve the outcome of acute stroke through neuroprotection and neurogenesis. In primary cultures of large glial cells, Cerebrolysin can reduce the inflammatory response which was induced by lipopolysaccharides, and may therefore reduce the ischemic impairment after stroke. Because of the role of inflammation in degenerative diseases of the nervous system, Cerebrolysin may thus produce the protective effect in such kind of diseases.
In a recently finished study in acute stroke we found that the NIHSS score on day 14 and mRS after 3 months was significantly better in the Cerebrolysin group compared to Placebo.
In a 2nd study about an acute left middle cerebral artery occlusion rat model, at day 7 and day 14 brain slices which were immunohistochemically stained showed that Nestin-positive cells were significantly increased in the Cerebrolysin group compared to control, indicating that Cerebrolysin may promote the proliferation of nerve cells.
Clinically, we aim to treat VD and AD patients long-term (1-2 years) with Cerebrolysin and compare the long-term (2-3 years) differences of disease progression (cognitive dysfunction) between the Cerebrolysin group and non-treated patients.
Regarding stroke patients, a 3-arm study (Group 1: Cerebrolysin treatment in the acute phase, Group 2: Cerebrolysin treatment starts at day 30, Group 3: No treatment with Cerebrolysin) to compare the influence of cerebrolysin on the NIHSS, as well as on the development of ischemic focal and nerve fibers using MRI and DTI.
The three studies will help to explain the neuroprotective mechanisms of Cerebrolysin