The Role Of Neuroplasticity Types In Aphasia Recovery And Its Influencing Factors: A Systematic Review Of Literature

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Background and Objectives: aphasia is common consequence of stroke. Most people with aphasia in the acute phase show some degree of spontaneous recovery, most of which occurs during the first two to three months. Neuro-linguistic mechanisms of recovery in aphasia remain a lot unknown still, but considerably depends to the amount of change plasticity in brain of patients after stroke. The aim of this article is review of the role of Neuroplasticity types in aphasia recovery and its influencing factors: a systematic review of literature

Methods: this study is a review of all articles listed in PubMed database from January 1990 to September, 2016 that were identified using the keywords Neuroplasticity and aphasia (in titles) and language.

Results: Three types of changes in the activity of the nervous system after a stroke, is closely linked with aphasia recovery: 1. Reactivation of damaged areas of the left hemisphere or activities it’s surrounding in language tasks 2. Acquisition or manifest of the ability to process language in the nondominant right Hemisphere 3. The wrong activity of nondominant right hemisphere that can prevent language improvement.

Discussion and Conclusion: Most of studies have shown involvement of surrounding areas in the left hemisphere lesion in language improvement, others reported employment of the right hemisphere regions and some others have known useful the involvement of both hemispheres in language improvement. It is difficult, aphasia improvement prediction due to the interaction of various factors. The most promising results aphasia treatment for the reorganization of the brain, caused by speech therapy that lead to quick improvements considerably.

Key words: Neuroplasticity, Aphasia, Language