



Neuropharmacology In Individual With Aphasia: A Review

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Introduction: The neuropharmacology of aphasia is an area of cognitive neuroscience. In this article we review what is known about these domain, especially with regard to treating aphasia with drugs. Neurotransmitters can improve language function in certain patients with aphasia. We discuss which neurotransmitters work for which language functions in which patients.

Method: PubMed and Science databases were searched to identify studies investigated effects of drugs on language function in aphasia in peer-reviewed journals between 2000 and 2015.

Results: Studies show that Catecholamines seem especially promising for nonfluent aphasias. Dopamine agonists, in particular bromocriptine, improve verbal fluency in transcortical motor aphasia. Norepinephrine affects prefrontal functions and seems to relieve symptoms of depression and improve overall recovery of function, including language, following stroke. Amphetamines potentiate norepinephrine to promote general recovery, and have been shown to improve language performance in some patients with nonfluent aphasia.

Conclusion: studies have been looking at the possibility of manipulating brain chemistry for functional gain in patients with aphasia, but, to date, no overwhelming evidence has emerged to support routine use of drugs as either a complementary or alternative treatment for aphasia. Studies have been largely anecdotal with small numbers of patients and varying types of aphasia. Improvements due to spontaneous recovery have been difficult to separate from treatment benefits.

Key words: Stroke, Aphasia, Neuropharmacology



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