

Direct current stimulation and rehabilitation of comprehension deficits in stroke aphasia

<https://www.neurodegenerationresearch.eu/survey/direct-current-stimulation-and-rehabilitation-of-comprehension-deficits-in-stroke-aphasia/>

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Contact information of lead PI

Country

United Kingdom

Title of project or programme

Direct current stimulation and rehabilitation of comprehension deficits in stroke aphasia

Source of funding information

The Stroke Association

Total sum awarded (Euro)

€ 284,467

Start date of award

31/07/2013

Total duration of award in years

3

Keywords

Research Abstract

Direct current stimulation (tDCS) shows great promise as a method of stroke rehabilitation yet most research to date has focussed on the motor domain. This project examines the remediation of multimodal comprehension impairments in aphasia using tDCS and cognitive training for the first time, building on our recent findings that such patients retain their conceptual knowledge but have difficulty shaping semantic retrieval according to the current goals or context. This motivates the use of training tasks designed to increase the flexibility of semantic processing, combined with tDCS to encourage reorganisation of brain function. This project will establish: (1) the locations and protocols for tDCS that are most effective for

improving comprehension, (2) whether the positive effects of tDCS can be bolstered by concurrent cognitive training, (3) if the benefits of tDCS plus training on one task will generalise to other control-demanding tasks, (4) the duration of tDCS effects via a six-month follow-up study, and (5) the relationship between lesion location and semantic/executive control impairment, via analyses of behavioural and MRI data in a large cohort of stroke survivors. These studies will develop and evaluate an alternative therapeutic approach to comprehension deficits, with the potential to benefit many stroke survivors.

Further information available at:

Types:

Investments < €500k

Member States:

United Kingdom

Diseases:

N/A

Years:

2016

Database Categories:

N/A

Database Tags:

N/A