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Alzheimer's & Dementia

Translational Research & Clinical Interventions

Inferior parietal transcranial direct current stimulation with training improves cognition in anomic Alzheimer's disease and frontotemporal dementia

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A clinical trial of transcranial direct current stimulation (tDCS) on ten patients with anomic Alzheimer's disease or frontotemporal dementia is sufficiently promising to show proof of principal and warrants further study. Using a double-blind cross-over design, patients were tested on their picture naming capacity over a series of ten thirty-minute sessions of tDCS or sham stimulation. When receiving the real stimulation, most subjects showed significant improvement that lasted at least two weeks after treatment.

The electrical stimulation helps weakened neurons to fire, making them more active. Other treatments for dementia have tried to target the chemical elements of dementia with very limited success. With tDCS, electrical charges in the brain are targeted and, in this small sample, show significant change. Moreover, family members reported positive changes in behaviour that coincided with the treatment.

This trial is the culmination of twenty years of research to develop a novel approach that would bring meaningful benefits in quality of life for dementia patients.

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