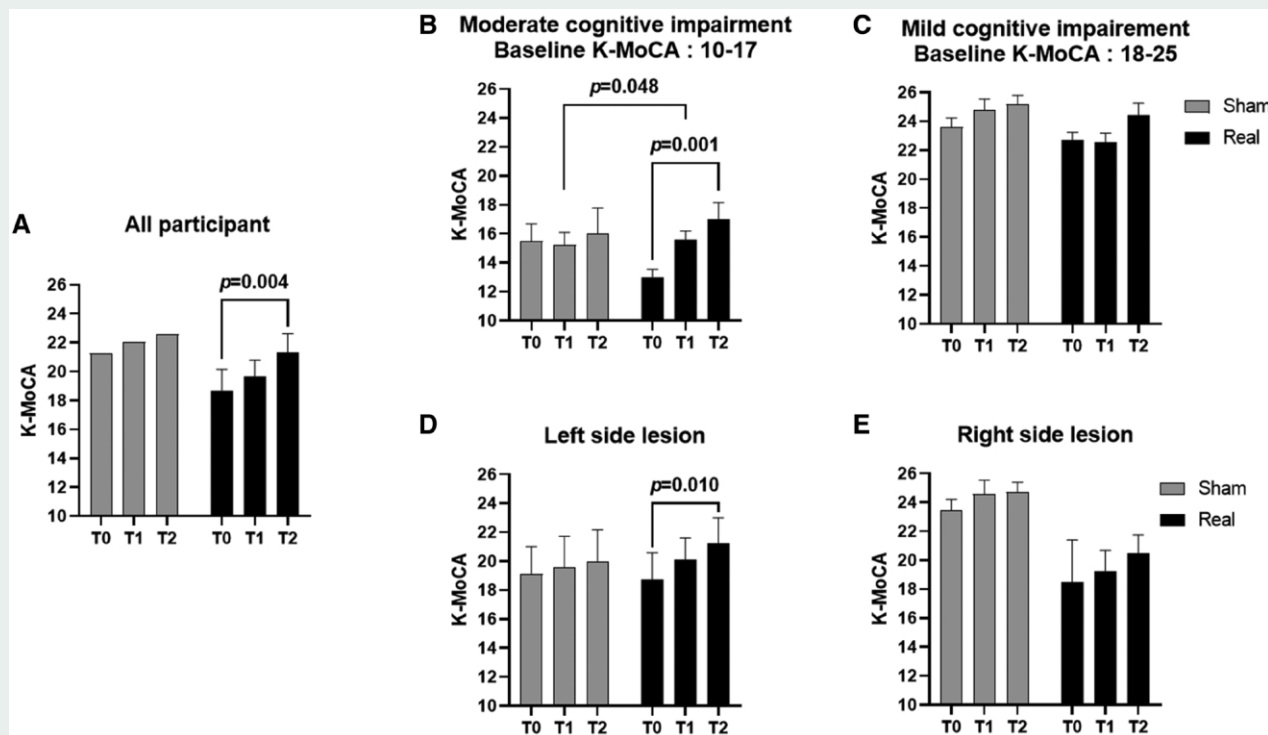


Quarterly Newsletter

BRAIN MODULATION FOR NEURORECOVERY

Cognition Enhancement in Chronic Stroke using Home-Based Transcranial Direct Current Stimulation: Ko *et al.* in October's Stroke journal evaluated feasibility of remotely supervised tDCS (RS-tDCS) as well as efficacy in terms of cognitive improvement in patients with chronic stroke. This Korean group recruited and randomized (1:1 RS-tDCS vs sham) 26 patients with Korean version of MoCA (K-MoCA) score of <26. The patients received 20 sessions of RS-tDCS or sham stimulation (5 days/week for 4 weeks). Patients in real group showed significant improvement in K-MoCA, especially with lower baseline K-MoCA, or with left hemispheric lesions. The adherence to RS-tDCS was 98.4% and there were no adverse events, suggesting RS-tDCS as a safe and feasible rehabilitative option for poststroke cognitive dysfunction.



Ko, M.-H., Yoon, J.-Y., Jo, Y.-J. et al. Home-Based Transcranial Direct Current Stimulation to Enhance Cognition in Stroke: Randomized Controlled Trial. Stroke 53, 2992-3001, doi:10.1161/STROKEAHA.121.037629 (2022)

Upcoming events

Women's Brain Project (WBP) Webinar II held in collaboration with EFPIA

6 October 2022

<https://www.efpia.eu/news-events/events/external-event/women-s-brain-project-webinar-ii/>

Neuropsychological Special Interest Group of WFNR

13-14 October 2022, Maastricht, Netherlands

<http://www.merseevents.com/19th-nr-sg-wfnr>

Young WFNR Research Webinar

2 November 2022, 6-8pm CEST

traceymole@wfnr.co.uk

World Stroke Organization meeting

Oct 26-29, 2022

<https://worldstrokecongress.org/>

18th Asian Oceanian Congress of Neurology and 29th Annual Conference of the Indian Academy of Neurology

3-6 November 2022, New Delhi, India

<http://www.aoaneurology.org/>

37th Congress of the French Society of Physical Medicine and Rehabilitation

1-3 December 2022, Rennes, France

<https://rennes.sofmer2022.com/>

16th European Headache Federation Congress

7-10 December 2022, Vienna, Austria

<https://www.headache-congress.org/>

12th World Congress for Neurorehabilitation

14-17 December 2022, Vienna, Austria

<http://www.wfnr-congress.org>

Select Recent Publications of Brainmodulation for Neurorehabilitation

ID	TYPE*	TOOL	DISEASE	CITATION
1	2	NIBS	Stroke – upper limb motor function	Cha, T. H. & Hwang, H. S. Rehabilitation Interventions Combined with Noninvasive Brain Stimulation on Upper Limb Motor Function in Stroke Patients. <i>Brain Sci</i> 12, doi:10.3390/brainsci12080994 (2022).
2	2	VNS	Stroke	Ananda, R., Roslan, M. H. B., Wong, L. L. et al. Efficacy and Safety of Vagus Nerve Stimulation in Stroke Rehabilitation: A Systematic Review and Meta-Analysis. <i>Cerebrovasc Dis</i> , 1-12, doi:10.1159/000526470 (2022).
3	2	tDCS	Stroke	Gonzalez-Rodriguez, B., Serradell-Ribe, N., Viejo-Sobera, R. et al. Transcranial direct current stimulation in neglect rehabilitation after stroke: a systematic review. <i>J Neurol</i> , doi:10.1007/s00415-022-11338-x (2022).
4	2	tDCS	Balance rehab	Beretta, V. S., Santos, P. C. R., Orcioli-Silva, D. et al. Transcranial direct current stimulation for balance rehabilitation in neurological disorders: A systematic review and meta-analysis. <i>Ageing Res Rev</i> 81, 101736, doi:10.1016/j.arr.2022.101736 (2022).
5	2	Rehab + tDCS	Stroke	Cha, T. H. & Hwang, H. S. Rehabilitation Interventions Combined with Noninvasive Brain Stimulation on Upper Limb Motor Function in Stroke Patients. <i>Brain Sci</i> 12, doi:10.3390/brainsci12080994 (2022).
6	1	HD-tDCS	Pain	Xiong, H. Y., Cao, Y. Q., Du, S. H. et al. Effects of HD-tDCS targeting the anterior cingulate cortex on the pain thresholds: A Randomized Controlled Trial. <i>Pain Med</i> , doi:10.1093/pm/pnac135 (2022).
7	2	Cerebellar rTMS	Motor dysfunction	Xia, Y., Wang, M. & Zhu, Y. The Effect of Cerebellar rTMS on Modulating Motor Dysfunction in Neurological Disorders: a Systematic Review. <i>Cerebellum</i> , doi:10.1007/s12311-022-01465-6 (2022).
8	2	Aerobic Exercise + tDCS	Geriatric population	Talar, K., Vetrovsky, T., van Haren, M. et al. The Effects of Aerobic Exercise and Transcranial Direct Current Stimulation on Cognitive Function in Older Adults with and without cognitive impairment: A Systematic Review and Meta-analysis. <i>Ageing Res Rev</i> , 101738, doi:10.1016/j.arr.2022.101738 (2022).
9	2	rTMS	Parkinson's	Li, R., He, Y., Qin, W. et al. Effects of Repetitive Transcranial Magnetic Stimulation on Motor Symptoms in Parkinson's Disease: A Meta-Analysis. <i>Neurorehabil Neural Repair</i> 36, 395-404, doi:10.1177/15459683221095034 (2022).
10	2	NIBS	Stroke – unilateral neglect	Li, L. & Huang, H. Noninvasive neuromodulation for unilateral neglect after stroke: a systematic review and network meta-analysis. <i>Neurol Sci</i> 43, 5861-5874, doi:10.1007/s10072-022-06187-5 (2022).
11	2	SCS	SCI	Laskin, J. J., Waheed, Z., Thorogood, N. P. et al. Spinal Cord Stimulation Research in the Restoration of Motor, Sensory, and Autonomic Function for Individuals Living With Spinal Cord Injuries: A Scoping Review. <i>Arch Phys Med Rehabil</i> 103, 1387-1397, doi:10.1016/j.apmr.2022.01.161 (2022).
12	2	Neuromodulation	Chronic pelvic pain	Hao, D., Yurter, A., Chu, R. et al. Neuromodulation for Management of Chronic Pelvic Pain: A Comprehensive Review. <i>Pain Ther</i> , doi:10.1007/s40122-022-00430-9 (2022).
13	2	Digitalized tES	-	Brunoni, A. R., Ekhtiari, H., Antal, A. et al. Digitalized transcranial electrical stimulation: A consensus statement. <i>Clin Neurophysiol</i> , doi:10.1016/j.clinph.2022.08.018 (2022).
14	2	Neuromodulation	Stroke	Ganguly, K., Khanna, P., Morecraft, R. J. & Lin, D. J. Modulation of neural co-firing to enhance network transmission and improve motor function after stroke. <i>Neuron</i> 110, 2363-2385, doi:10.1016/j.neuron.2022.06.024 (2022).

* 1 = Experimental, 2 = Review