Journal of Vessels and Circulation

12th Iranian Congress of Stroke December 2020

Effects of Cerebellar Transcranial Direct Current Stimulation (tDCS) on Timed Up and Go Test with Foot Placement in Chronic Stroke Patients

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Article Info	A B S T R A C T
<i>Article type:</i> Original article	 Background and Aim: Transcranial direct current stimulation (tDCS) is a safe, non-invasive and low-cost technique. Some studies indicated improvement in the balance of some groups with postural disorders after using tDCS. Few studies have focused on the effects of tDCS on lower limb balance so the purpose of this current study was to assess the effect of single session of cerebellum anodal tDCS on Timed Up and Go test in patients with chronic stroke. Materials and Methods: According to the inclusion and exclusion criteria 20 volunteers with chronic stroke participated in this clinical trial study. Timed UP and Go test was carried out with four different foot position 1) symmetrical foot position 2) Asymmetrical, affected leg behind unaffected leg 3) Asymmetrical, unaffected leg behind affected leg 4) spontaneous, before and after using tDCS. Anodal tDCS (2 mA) was applied over the cerebellar region for 20 minutes. Results: Time of the Time UP and GO test was significantly different after using tDCS at all foot conditions (p<0.05). Conclusion: the result of the current study provide evidence that single session of anodal tDCS over the cerebellar region could improve functional balance in patients with chronic stroke.
<i>Article History:</i> Received: 20 January 2020 Revised: 04 March 2020 Accepted: 14 May 2020	
<i>Keywords:</i> Chronic stroke Timed Up and Go test Transcranial direct current stimulation (tDCS)	

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