MRT - TDCS – TRANSCRANIAL DIRECT CURRENT STIMULATION IN THE REHABILITATION OF STROKE PATIENTS ASSOCIATING DEPRESSION OR APHASIA

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Introduction: Stroke can have a wide range of side-effects depending on the location of the lesion. Clinical strategies for treatment include: stabilizing the patient, preserving brain functions, and adapting the patient to functional deficits. The rehabilitation of these patients is a major objective, in order to achieve its goal of "promoting physical and cognitive functioning, activities of participation (quality of life) and changing personal and environmental factors. In the conditions of increasing life expectancy, we are facing an increase in the number of strokes, resulting in more and more people with disabilities and cognitive impairments (depression, aphasia, etc.).

Purpose: Identify and analyze the benefits of using tDCS ,in terms of improving cognitive status in patients with stroke, in a medical history that associates depression or aphasia.

Method: Applying an electric current through atDCS on DLPFC left by mounting at least 2 electrodes, with a type of contralateral symmetric mounting, an asymmetric or other type of HDtDCS (tDCS with more than 2 electrodes). In the case of patients with aphasia, it will be ordered to assemble a Broca or Wernike area.

Results: Changing excitability and oxygen consumption from brain cell level, tDCS: improves plasticity and neural reorganization, contributes to the improvement of post stroke status, improves motor performance as well as cognitive functions. Effective to facilitate the processing and articulation of language.

Conclusions: The promising approach to rehabilitation of stroke patients, tDCS is proving useful for improving both cognitive and physical functions. As we learn more about the effects of tDCS on stroke, it will be possible to optimize tDCS parameters to maximize its effectiveness.