

Effectiveness and Safety of Transcutaneous Electrical Cranial-auricular Acupoint Stimulation (TECAS) for Patients with Mild-to-Moderate Depression

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Background: In view of traditional Chinese medicine (TCM) and the latest medical literature, acupoints Baihui (DU11) and Yintang (DU13) located on the forehead are suggested as a primary stimulation site for electroacupuncture in treating depression together with ear acupuncture therapy. Divergent from traditional acupuncture, transcutaneous electrical stimulation does not require piercing of needles. Instead, electrodes are placed on the skin at certain sites. Thereby avoiding trauma pain and needle-phobia, it is more accepted by patients and clinical operations. To this end, we intend to further create a novel and self-administrable non-invasive brain stimulation therapy, namely transcutaneous electrical cranial-auricular acupoint stimulation (TECAS). **Objectives:** This study compares the clinical efficacy and safety of TECAS with the antidepressant Escitalopram in treating mild to moderate depression through a randomized controlled trial. **Methods:** 70 patients were randomized into TECAS group (n=35) and antidepressant group (n=35). Both groups received 8-weeks of treatment with a 4-weeks post-treatment follow up. Patients in TECAS group received 30 minutes of stimulation treatment twice a day, once in the morning and once in the evening every day, while those in antidepressant group received 10-20mg q.d. of escitalopram each day. **Results:** Over 60% of the participants in TECAS responded (50% score reduction from baseline) to the treatment and achieved remission (MADRS score of 10 or below) from depression. No significant differences were observed between the groups ($p>0.05$) in all the assessment results. No serious adverse events were observed throughout the study.

Biography

Yat Kwan has her expertise in search of novel alternatives via combining traditional Chinese medicine theories with modern technologies to develop self-administrable techniques or devices to improve patients' mental health and wellbeing.