

## Cognitive Neuroscience 2020: Pilot study in micro-current acupoint therapy for Parkinson's disease- Cheung Chun Luke- Eaulier (Dalian) Hospital

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### **Introduction:**

Acupuncture has been commonly used as an adjuvant therapy or monotherapy in the treatment of Parkinson's disease in China and in other countries. Animal studies have consistently show that this treatment is both neuroprotective, protecting dopaminergic neurons from degeneration and also restorative, restoring tyrosine hydroxylase positive dopaminergic terminals in striatum, resulting in improvements in motor performance in animal models of Parkinsonism. Studies show that this protection is mediated through the same common mechanisms as other neuroprotective agents, including anti-oxidative stress, anti-inflammatory and anti-apoptotic pathways at molecular and cellular levels. Restoration of function seems to involve activation of certain compensatory brain regions as a mechanism at the network level to correct the imbalances to the nervous system resulting from loss of dopaminergic neurons in substantia nigra. Clinical studies in China and Korea, in particular, have shown a positive benefit of acupuncture in treating Parkinson's disease, especially in reducing the doses of dopaminergic medications and the associated side effects. However, large and well-controlled clinical trials are still needed to further demonstrate the efficacy and effectiveness of acupuncture in the treatment of Parkinson's disease.

**Objectives:** We intend to find out what are the major concerns of parents who immunize their children. Another goal is to explore the reasons why parents delay or refuse immunization of their children in the first 5 years of life. Finally, we want to find common concerns between parents who do immunize and those who delay or refuse it. **Study Design and Methods:** Anonymous confidential questionnaires were given to 1206 random parents in public and private health centers all over Albania from October to December 2018. Parents expressed their concerns in regards of vaccines received by children from 0-5 years old according to the Albanian Immunization calendar. Seven databases, namely, MEDLINE, EMBASE, the Cochrane Library, the China National Knowledge Infrastructure [CNKI], and three Korean medical databases, were searched from their inception through August 2015 without language restrictions. Randomized controlled trials (RCTs) were included if they contained reports of acupuncture compared with no treatment and conventional treatment alone or acupuncture plus conventional treatment compared with conventional treatment alone for PD symptoms.

**Results:** Parkinson's disease (PD) is the second-most-common chronic and progressive neurodegenerative disease. The long-term use of levodopa leads to a loss of efficacy and to

complications. Therefore, many patients with PD have turned to complementary therapies to help relieve their symptoms. Acupuncture is most commonly used as a complementary therapy in patients with PD. This paper presents a systematic review and meta-analysis of the effects of acupuncture for patients with PD. This study was performed to summarize and evaluate evidence regarding the effectiveness of acupuncture in the relief of PD symptoms. Assessments were performed with the unified PD rating scales (UPDRS) I, II, III, and IV and the total score, the Webster scale, and effectiveness rating. Methodological quality was assessed using the Physiotherapy Evidence Database (PEDro) scale and the Cochrane risk of bias (ROB).

**Conclusions:** We performed a systematic review and meta-analysis to evaluate the use of acupuncture for relief of PD symptoms and found that acupuncture has significant positive effects. Acupuncture can be considered as a combination treatment with conventional treatment for patients with PD. Further studies on this topic should be carried out according to rigorous methodological designs in both the East and the West.