

What about acupuncture in Parkinson's disease

La acupuntura en la enfermedad de Parkinson

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Acupuncture is a simple, convenient, cost-effective, safe, and effective treatment method. In this number of RMN, Chávez-Luévanos et al. describe the role of electroacupuncture (EA) as adjuvant therapy in the outcome of non-motor symptoms of patients with Parkinson's disease (PD)¹. Twenty-five patients were treated with 10 sessions of EA reporting benefits in non-motor symptoms mainly in the mood/cognition domain. This manuscript given us the opportunity to review the role of acupuncture in PD.

In 1995, Ulm² from Germany called attention to the potential role of some physiotherapeutic measures in speech defects in Parkinsonian patients including laser acupuncture. These pioneer efforts were non-useful. At the same time, Li published a clinical analysis of patients with PD describing personal experiences in individual cases of PD patients treated by means of traditional chine medicine³.

Zuang and Wang published their experience treating 29 patients with PD concluding in this small series the improvement in clinical symptoms and signs⁴.

Western literature included information about alternative therapies in PD when Rajedran et al. reported alternative therapies in PD until 40% of patients, including EA (in 10%), vitamins, and herbs⁵.

A non-blinded, pilot trial was conducted to assess the safety, tolerability, and efficacy of acupuncture for the symptoms of PD⁶. Eighty-five percent of patients reported subjective improvement of individual symptoms but

the only objective improvement was in the sleep category, data different from Chavez-Luévanos study.

In the past 5 years, several case series have evaluated the efficacy of acupuncture in patients with PD. One case study documented a 75-year-old male patient with progressive PD symptoms, including limb tremors, rigidity, and bradykinesia. This patient received exclusive acupuncture therapy, demonstrating significant improvements in both motor and non-motor symptoms without the use of antiparkinsonian medication.

The mechanisms underlying the effects of acupuncture remain poorly defined. However, acupuncture can cause a variety of biological responses, as it has been clearly demonstrated by animal and human studies. Using a model mouse of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine-induced PD, Kang et al. propose a neuroprotective effect of EA in PD⁷. However, there are no clinical trials of neuroprotection in PD.

Another case series investigated the effect of acupuncture on motor reaction time after auditory stimuli in PD patients. The results indicated a trend toward more pronounced improvements on the more affected side of the body, suggesting that acupuncture could enhance motor response efficiency in these patients.

Acupuncture may alleviate non-motor symptoms in PD through several mechanisms: modulation of neurotransmitter levels, regulation of immune responses, reduction of oxidative stress, and enhancement of brain electrical activity. By influencing neurotransmitter

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Date of reception: 25-11-2024

Date of acceptance: 03-12-2024

DOI: 10.24875/RMN.M24000104

Available online: 13-02-2025

Rev Mex Neuroci. 2025;26(1):3-4

www.revexneurociencia.com

balance, acupuncture can improve mood and cognitive functions. Its immunomodulatory effects may decrease neuroinflammation, while antioxidant properties help mitigate neuronal damage. In addition, acupuncture's impact on brain electrical function can enhance sleep quality and autonomic regulation, collectively contributing to the amelioration of non-motor symptoms in PD patients⁸⁻⁹.

In 2008, Soo Lee et al. made a systematic review about the effectiveness of acupuncture for PD¹⁰. A meta-analysis in this review about the comparison of acupuncture plus conventional drugs versus conventional drugs alone suggested additional benefits of acupuncture. In conclusion, the evidence for the effectiveness of acupuncture for treating PD is not convincing.

These studies suggest that acupuncture could serve as a complementary tool in managing PD, particularly in patients who cannot tolerate or decline conventional medication. However, more research with robust designs and larger cohorts is required to draw definitive conclusions about its efficacy and safety¹¹.

In conclusion, the available evidence has significant limitations, such as small sample sizes, short follow-up periods and a lack of standardisation in the evaluation scales used. These methodological shortcomings make it challenging to draw definitive conclusions about the

efficacy of acupuncture in PD. Therefore, further studies with greater scientific rigor, including larger samples and longer follow-up durations, are necessary to better assess the impact of acupuncture in treating PD.

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