

Accepted Manuscript

Research report

Objectively measuring effects of electro-acupuncture in parkinsonian rhesus monkeys

Rui Zhang, Anders H. Andersen, Peter A. Hardy, Eric Forman, April Evans, Yi Ai, Jin Yue, Guihua Yue, Don M. Gash, Richard Grondin, Zhiming Zhang

PII: S0006-8993(17)30446-8

DOI: <https://doi.org/10.1016/j.brainres.2017.10.006>

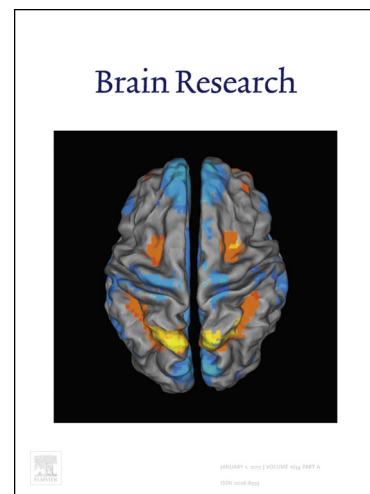
Reference: BRES 45517

To appear in: *Brain Research*

Received Date: 23 April 2017

Revised Date: 19 September 2017

Accepted Date: 4 October 2017



Please cite this article as: R. Zhang, A.H. Andersen, P.A. Hardy, E. Forman, A. Evans, Y. Ai, J. Yue, G. Yue, D.M. Gash, R. Grondin, Z. Zhang, Objectively measuring effects of electro-acupuncture in parkinsonian rhesus monkeys, *Brain Research* (2017), doi: <https://doi.org/10.1016/j.brainres.2017.10.006>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Objectively measuring effects of electro-acupuncture in parkinsonian rhesus monkeys

Rui Zhang^{a,c}, Anders H. Andersen^{b,c}, Peter A. Hardy^{b,c}, Eric Forman^c, April Evans^c, Yi Ai^c, Jin Yue^d, Guihua Yue^e, Don M. Gash^c, Richard Grondin^c and Zhiming Zhang^{c,*}

^a Department of Neurosurgery, Shandong Provincial Hospital, Shandong University School of Medicine, Jinan, Shandong, 250021 PR of China

^b Magnetic Resonance Imaging and Spectroscopy Center, University of Kentucky, Lexington, KY 40536 USA

^c Department of Neuroscience, University of Kentucky College of Medicine, Lexington, KY 40536 USA

^d Nanning Hospital of Traditional Chinese Medicine, Nanning City, Guangxi, 530001 PR of China

^e Guangxi University of Chinese Medicine, Nanning City, Guangxi, 530200 PR of China

*Corresponding author at: Department of Neuroscience, University of Kentucky, Chandler Medical Center, 48 Whitney-Hendrickson Bldg, Lexington, KY 40536-0098, USA.

E-mail address: zzhan01@uky.edu

Abbreviations: APO, apomorphine; BOLD, blood oxygen level dependent; EA, electroacupuncture; fMRI, functional magnetic resonance imaging; GDNF, glial cell derived neurotrophic factor; GPe, global pallidus externa; mMAP, monkey movement analysis panel; MPTP, 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine ; NHP, nonhuman primate; PD, Parkinson's disease; phMRI, pharmacological MRI; ROI, region of interest; SN, substantia nigra

Abstract

Download English Version:

<https://daneshyari.com/en/article/8839957>

Download Persian Version:

<https://daneshyari.com/article/8839957>

[Daneshyari.com](https://daneshyari.com)