

Accepted Manuscript

Title: Evaluation of the neonatal streptozotocin model of diabetes in rats: evidence for a model of neuropathic pain

Authors: Paulino Barragán-Iglesias, Víctor Hugo Oidor-Chan, Emanuel Loeza-Alcocer, Jorge Baruch Pineda-Farias, Isabel Velazquez-Lagunas, Ana Belen Salinas-Abarca, Enrique Hong, Alicia Sánchez-Mendoza, Rodolfo Delgado-Lezama, Theodore J. Price, Vinicio Granados-Soto



PII: S1734-1140(17)30363-8
DOI: <http://dx.doi.org/10.1016/j.pharep.2017.09.002>
Reference: PHAREP 791

To appear in:

Received date: 26-5-2017
Revised date: 1-8-2017
Accepted date: 12-9-2017

Please cite this article as: Paulino Barragán-Iglesias, Víctor Hugo Oidor-Chan, Emanuel Loeza-Alcocer, Jorge Baruch Pineda-Farias, Isabel Velazquez-Lagunas, Ana Belen Salinas-Abarca, Enrique Hong, Alicia Sánchez-Mendoza, Rodolfo Delgado-Lezama, Theodore J. Price, Vinicio Granados-Soto, Evaluation of the neonatal streptozotocin model of diabetes in rats: evidence for a model of neuropathic pain (2010), <http://dx.doi.org/10.1016/j.pharep.2017.09.002>

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.

Evaluation of the neonatal streptozotocin model of diabetes in rats: evidence for a model of neuropathic pain

Paulino Barragán-Iglesias^{a,b}, Víctor Hugo Oidor-Chan^a, Emanuel Loeza-Alcocer^{c,d}, Jorge Baruch Pineda-Farias^{a,d}, Isabel Velazquez-Lagunas^a, Ana Belen Salinas-Abarca^a, Enrique Hong^a, Alicia Sánchez-Mendoza^e, Rodolfo Delgado-Lezama^c, Theodore J. Price^b and Vinicio Granados-Soto^{a*}

^a Neurobiology of Pain Laboratory, Departamento de Farmacobiología, Cinvestav, Sede Sur, Ciudad de México, Mexico

^b School of Behavioral and Brain Sciences, University of Texas at Dallas, Richardson, Texas, USA

^c Departamento de Fisiología, Biofísica y Neurociencias, Cinvestav, Zacatenco, Ciudad de México, Mexico

^d Department of Neurobiology, University of Pittsburgh, School of Medicine, Pittsburgh, Pennsylvania, USA

^e Departamento de Farmacología, Instituto Nacional de Cardiología Ignacio Chávez, Ciudad de México, Mexico

*Corresponding author:

Vinicio Granados-Soto, Ph.D.
Neurobiology of Pain Laboratory
Departamento de Farmacobiología
Cinvestav, Unidad Coapa
Calzada de los Tenorios 235, Col. Granjas Coapa
14330 Ciudad de México, Mexico
Tel: +52 55 5483 2868
Fax: +52 55 5483 2863
E-mail: vgranados@cinvestav.mx

HIGHLIGHTS

- nSTZ produced hyperglycemia, weight loss and glucose intolerance in neonatal rats.
- nSTZ enhanced of ATF3 expression in DRG, satellite glial cells and sciatic nerve.
- nSTZ increased GFAP and OX-42 immunoreactivity in the spinal dorsal horn.
- nSTZ produced mechanical hypersensitivity (tactile allodynia).
- Gabapentin and metformin alleviated tactile allodynia.

ABSTRACT

Background: The purpose of this study was to evaluate the participation of satellite glial cells (SGC), microglia and astrocytes in a model of streptozotocin-induced diabetes initiated in neonatal rats (nSTZ) and to determine the pharmacological profile for pain relief.

Download English Version:

<https://daneshyari.com/en/article/8349657>

Download Persian Version:

<https://daneshyari.com/article/8349657>

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