

Accepted Manuscript

Title: Effects of *UGT2B7*, *SCN1A* and *CYP3A4* on the therapeutic response of sodium valproate treatment in children with generalized seizures

Authors: Weixing Feng, Shenghui Mei, Leting Zhu, Yazhen Yu, Weili Yang, Baoqin Gao, Xiaojuan Wu, Zhigang Zhao, Fang Fang



PII: S1059-1311(17)30728-8
DOI: <https://doi.org/10.1016/j.seizure.2018.04.006>
Reference: YSEIZ 3161

To appear in: *Seizure*

Received date: 1-11-2017
Revised date: 11-3-2018
Accepted date: 8-4-2018

Please cite this article as: Feng Weixing, Mei Shenghui, Zhu Leting, Yu Yazhen, Yang Weili, Gao Baoqin, Wu Xiaojuan, Zhao Zhigang, Fang Fang. Effects of *UGT2B7*, *SCN1A* and *CYP3A4* on the therapeutic response of sodium valproate treatment in children with generalized seizures. *SEIZURE: European Journal of Epilepsy* <https://doi.org/10.1016/j.seizure.2018.04.006>

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.

Effects of *UGT2B7*, *SCN1A* and *CYP3A4* on the therapeutic response of sodium valproate treatment in children with generalized seizures

Running title genetic polymorphisms and effect of sodium valproate

Weixing Feng^{1,2,a}, Shenghui Mei^{3,4,a}, Leting Zhu³, Yazhen Yu², Weili Yang², Baoqin Gao², Xiaojuan Wu², Zhigang Zhao^{3,4,*}, Fang Fang^{1*}

¹Department of Neurology, Beijing Children's Hospital, Capital Medical University, Beijing 100045, China

²Department of Pediatrics, Beijing Tiantan Hospital, Capital Medical University, Beijing 100050, China

³Department of Pharmacy, Beijing Tiantan Hospital, Capital Medical University, Beijing 100050, China

⁴Department of Clinical Pharmacology, College of Pharmaceutical Sciences, Capital Medical University, Beijing 100045, PR China

^aEqual first authors

***Corresponding author:** Zhigang Zhao, Department of Pharmacy, Beijing Tiantan Hospital, Capital Medical University, 6 Tiantan Xili, Dongcheng District, Beijing 100050, PR China; Tel.: +86 010 67098036, Fax: +86 010 67096867, E-mail address: ttyyzzg1022@126.com

Fang Fang, Department of Neurology, Beijing Children's Hospital, Capital Medical University, 56 Nanlishi Road, Xicheng District, Beijing 100045, PR China; Tel.: +86 010 59616353; Fax: +86 010 59616353; E-mail: 13910150389@163.com

ABSTRACT:

Purpose: This study aims to evaluate the associations between genetic polymorphisms and the effect of sodium valproate (VPA) therapy in children with generalized seizures.

Methods: A total of 174 children with generalized seizures on VPA therapy were enrolled. Steady-state trough plasma concentrations of VPA were analyzed. Seventy-six single nucleotide polymorphisms involved in the absorption, metabolism, transport, and target receptor of VPA were identified, and their associations with the therapeutic effect (seizure reduction) were evaluated using logistic regression adjusted by various influence factors.

Results: rs7668282 (*UGT2B7*, T > C, OR = 2.67, 95% CI: 1.19 to 5.91, *P* = 0.017) was more prevalent in drug-resistant patients than drug-responsive patients. rs2242480 (*CYP3A4*, C > T, OR = 0.27, 95% CI: 0.095 to 0.79, *P* = 0.017) and

Download English Version:

<https://daneshyari.com/en/article/6829874>

Download Persian Version:

<https://daneshyari.com/article/6829874>

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