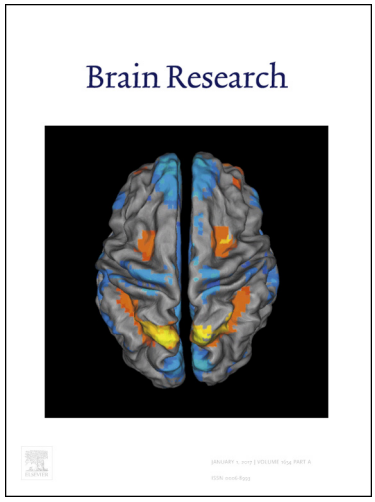

Research report

Anterior nucleus of thalamus stimulation inhibited abnormal mossy fiber sprouting in kainic acid-induced epileptic rats

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Anterior nucleus of thalamus stimulation inhibited abnormal mossy fiber sprouting in kainic acid-induced epileptic rats.

Guanyu Zhu[1], Dawei Meng[4], Yingchuan Chen[1], Tingting Du[2], Yuye Liu[1], Defeng Liu[1], Lin Shi[1], Yin Jiang[2], Xin Zhang[2], Jianguo Zhang[1,2,3]*.

1 Department of Neurosurgery, Beijing Tiantan Hospital, Capital Medical University, Beijing, China

2 Department of Functional Neurosurgery, Beijing Neurosurgical Institute, Capital Medical University, Beijing, China

3 Beijing key Laboratory of Neurostimulation, Beijing, China

4 Department of Neurosurgery, Aviational General Hospital of China Medical University, Beijing, China;

*** Correspondence to:** Jian-Guo Zhang, M.D., Ph.D., Department of Functional Neurosurgery, Beijing Neurosurgical Institute, Tiantan West No.6, Dongcheng Dist., Beijing, China. Zip code: 100050. Tel: +86-10-67096767. Fax: +86-10-67098349. E-mail address: zjguo73@126.com.

Abstract

Background. Deep brain stimulation (DBS) of the anterior nucleus of the thalamus (ANT) has demonstrated antiepileptic efficacy, especially for mesial temporal lobe epilepsy (MTLE). Mossy fiber sprouting (MFS) is involved in the pathogenesis of MTLE, and Sema-3A and GAP-43 are pivotal regulators of MFS. This study investigated the effects of ANT-DBS on MFS and expression levels of Sema-3A and