

[1]李鹏,陶陶,罗开俭.依达拉奉对兔脑出血后血肿周围组织中Bax及Bcl-2蛋白表达的影响[J].第三军医大学学报,2014,36(06):596-599.

Li Peng,Tao Tao,Luo Kaijian.Edaravone down-regulates Bax but up-regulates Bcl-2 in rabbits after intracerebral hemorrhage[J].J Third Mil Med Univ,2014,36(06):596-599.

[点击复制](#)

依达拉奉对兔脑出血后血肿周围组织中Bax及Bcl-2

[\(PDF\)](#)

分享到:

《第三军医大学学报》[ISSN:1000-5404/CN:51-1095/R] 卷: 36 期数: 2014年第06期 页码: 596-599 栏目: 论著 出版日期: 2014-03-30

Title: Edaravone down-regulates Bax but up-regulates Bcl-2 in rabbits after intracerebral hemorrhage

作者: [李鹏](#); [陶陶](#); [罗开俭](#)
贵阳医学院: 附属医院心理科, 附属肿瘤医院; 贵州省人民医院康复医学科

Author(s): [Li Peng](#); [Tao Tao](#); [Luo Kaijian](#)
Department of Psychology, Affiliated Hospital of Guiyang Medical Collage, Affiliated Cancer Hospital of Guiyang Medical College, Guiyang, Guizhou Province, 550004; Department of Rehabilitation, Guizhou Provincial People's Hospital, Guiyang, Guizhou Province, 550004, China

关键词: [脑出血](#); [Bax](#); [Bcl-2](#); [依达拉奉](#)

Keywords: [intracerebral hemorrhage](#); [Bax](#); [Bcl-2](#); [edaravone](#)

分类号: R743.34;R966;R971.1

文献标志码: A

摘要: 目的 动态观察依达拉奉对兔脑出血后血肿周围脑组织中Bax及Bcl-2蛋白表达的影响,初步探讨依达拉奉抑制神经细胞凋亡的作用机制。 方法 54只健康家兔分为实验组、假手术组以及依达拉奉干预组,通过自体血注入法建立兔脑出血模型,分别用免疫组化及Western blot检测造模后第1、3天及第5天各组血肿周围组织Bax及Bcl-2蛋白的表达。 结果 免疫组化结果显示:在假手术组中,Bax和Bcl-2蛋白的表达水平较低且各时相点均无明显差异($P>0.05$);实验组各时相点 Bax的阳性细胞平均数均高于假手术组 ($P<0.01$);依达拉奉干预后各时相点Bax阳性细胞平均数高于假手术组 ($P<0.01$),但低于实验组 ($P<0.01$)。实验组各时相点Bcl-2的阳性细胞平均数高于假手术组 ($P<0.01$),使用依达拉奉干预后Bcl-2阳性细胞明显增多,均高于假手术组和实验组 ($P<0.01$)。Western blot检测也得到了同样的变化趋势。 结论 依达拉奉抗神经细胞凋亡的作用机制可能与其下调Bax蛋白,上调Bcl-2蛋白的表达有关。

Abstract: Objective To determine the role of edaravone in regulating the expression of Bax and Bcl-2 proteins in the cerebral tissue around hematoma induced by intracerebral hemorrhage in rabbits. Methods Fifty-four rabbits were randomly divided into 3 groups: sham surgery group ($n=18$), model group ($n=18$),

导航/NAVIGATE

[本期目录/Table of Contents](#)

[下一篇/Next Article](#)

[上一篇/Previous Article](#)

工具/TOOLS

[引用本文的文章/References](#)

[下载 PDF/Download PDF\(1019KB\)](#)

[立即打印本文/Print Now](#)

[查看/发表评论/Comments](#)

[导出](#)

统计/STATISTICS

摘要浏览/Viewed 76

全文下载/Downloads 49

[评论/Comments](#)

[RSS](#) [XML](#)

and treatment group ($n=18$). Each group was further divided into 3 subgroups respectively: day 1 group ($n=6$), day 3 group ($n=6$), and day 5 group ($n=6$). Intracerebral hemorrhage model was made by injecting the self-body blood to the brain of the rabbits. Expression of Bax and Bcl-2 proteins in the cerebral tissue around hematoma were analyzed by immunohistochemistry and Western blot analysis. Results In sham surgery group, immunohistochemical assay indicated that no significant difference was found in the expression of Bax and Bcl-2 at the different time points ($P>0.05$). In model group, the positive expression of Bax was higher than those in the sham surgery group ($P<0.01$). In the treatment group, the expression was higher than those in the sham surgery group ($P<0.01$), but lower than those in the model group ($P<0.01$). The expression of Bcl-2 was higher in the model group than those in the sham surgery group ($P<0.01$), and that in the treatment group was significantly higher than those in the sham surgery group and the model group ($P<0.01$). These results were further confirmed by Western blot analysis. Conclusion Edaravone prevents the neuronal apoptosis after intracerebral hemorrhage, probably through down-regulation of Bax protein and up-regulation of Bcl-2 protein.

参考文献/REFERENCES:

李鹏, 陶陶, 罗开俭. 依达拉奉对兔脑出血后血肿周围组织中Bax及Bcl-2蛋白表达的影响[J]. 第三军医大学学报, 2014, 36(6): 596-599.

相似文献/REFERENCES:

[1]李志伟. 微创血肿清除术治疗脑出血的诊治体会[J]. 第三军医大学学报, 2007, 29(21): 2107.

[2]吕天兵, 苟欣, 余周, 等. 精索静脉曲张对青春期大鼠睾丸生精细胞HIF-1 α 和Bax表达的影响[J]. 第三军医大学学报, 2007, 29(19): 1883.

LU Tian-bing, GOU Xin, YU Zhou, et al. Effect of varicocele on expressions of HIF-1 α and Bax in germ cells of adolescent rats[J]. J Third Mil Med Univ, 2007, 29(06): 1883.

[3]文华海. 脑出血3例误诊分析[J]. 第三军医大学学报, 2007, 29(15): 1522.

[4]崔洁, 曹参祥, 郑静, 等. 脑出血大鼠脑组织MDA、TNF- α 含量变化及其依达拉奉干预效应的研究[J]. 第三军医大学学报, 2007, 29(11): 1032.

CUI Jie, CAO Can-xiang, ZHENG Jing, et al. Changes of TNF- α and malondialdehyde content in brain tissue and therapeutic effect of edaravone on rats after intracerebral hemorrhage[J]. J Third Mil Med Univ, 2007, 29(06): 1032.

[5]沈珠甫, 杨丽霞, 郭瑞威, 等. 神经酰胺对人内皮细胞凋亡及bax、bcl-2表达的影响[J]. 第三军医大学学报, 2008, 30(10): 957.

SHEN Zhu-fu, YANG Li-xia, GUO Rui-wei, et al. Effects of ceramide on apoptosis of human endothelial cells and expressions of bcl-2 and bax[J]. J Third Mil Med Univ, 2008, 30(06): 957.

[6]邹显巍, 吴珊. 大鼠脑出血后脑肺组织NF- κ B的表达及其在急性肺损伤中的作用[J]. 第三军医大学学报, 2007, 29(19): 1859.

ZOU Xian-wei, WU Shan. Expression of NF- κ B in the brain and lung and its role in acute lung injury following intracerebral hemorrhage of rats[J]. J Third Mil Med Univ, 2007, 29(06): 1859.

[7]王佳, 唐良茜, 姚紫薇. Survivin在子宫内膜异位症的表达及其与bcl-2、bax相关性的研究[J]. 第三军医大学学报, 2006, 28(21): 2186.

[8]陈玉培, 牟崇明, 季道如, 等. 参附注射液对大鼠缺血再灌注心肌Bcl-2、Bax与c-fos基因蛋白表达的影响[J]. 第三军医大学学报, 2006, 28(19): 1939.

[9]袁建国, 向强, 熊建琼, 等. 急诊微创介入术对高血压脑出血的救治研究[J]. 第三军医大学学报, 2006, 28(19): 1989.

[10]宋华培, 黄跃生, 党永明, 等. PI3K/Akt信号途径抑制烧伤后大鼠缺血缺氧心肌细胞凋亡[J]. 第三军医大学学报, 2009, 31(01): 52.

SONG Hua-pei, HUANG Yue-sheng, DANG Yong-ming, et al. PI3K/Akt signal pathway inhibits ischemia and hypoxia-induced myocardial apoptosis in rats[J]. J Third Mil Med Univ, 2009, 31(06): 52.