

论著

嗜中性粒细胞胞质因子1基因C923T多态性与长沙市汉族人群脑出血的相关性研究

黄晓松¹, 杨期东²

1.湖南省脑科医院神经内科, 长沙 410007; 2.中南大学湘雅医院神经内科, 长沙410008

摘要:

目的: 探讨嗜中性粒细胞胞质因子1(NCF1)基因第10外显子C923T(Ala308Val)多态性与湖南省长沙市汉族人群脑出血的关系。方法: 采用PCR-单链构象多态技术和DNA直接测序法检测湖南省长沙市汉族人群脑出血患者110例、10个脑出血家系成员110例和健康对照者100名的NCF1基因第10外显子C923T多态性; 同时检测各组血脂水平。结果: 湖南省长沙市汉族人群NCF1基因第10外显子C923T多态存在CC, CT, TT 3种基因型, 脑出血组及其各亚型组C923T(Ala308Val)多态基因频率分布与对照组比较, 差异无统计学意义($P>0.05$); 脑出血家系组中患病组和未患病组及脑出血组的C923T多态分布与对照组比较, 差异无统计学意义($P>0.05$); 脑出血组中各基因型血脂水平与对照组比较, 差异无统计学意义($P>0.05$)。结论: 湖南省长沙市汉族人群NCF1基因C923T多态性可能与脑出血的易患性无关。

关键词: 脑出血 嗜中性粒细胞胞质因子1 基因多态性 血脂

Correlation between neutrophil cytosolic factor 1 gene C923T polymorphism and cerebral hemorrhage in the Han in Changsha

HUANG Xiaosong¹, YANG Qidong²

1.Department of Neurology, Hunan Brain Hospital, Changsha 410007;

2.Department of Neurology, Xiangya Hospital, Central South University, Changsha 410008, China

Abstract:

Objective To investigate the relation between C923T (Ala308Val) polymorphism in exon 10 of neutrophil cytosolic factor 1 (NCF1) gene and cerebral hemorrhage in the Han in Changsha and to evaluate the effect of C923T (Ala308Val) polymorphism on plasma lipid levels. Methods Changsha Han C923T (Ala308Val) polymorphism in NCF1 gene was determined by PCR single strand conformation polymorphism analysis and DNA sequencing in 100 healthy controls, 110 patients with cerebral hemorrhage, and 10 cerebral hemorrhage pedigrees. The level of plasma lipid was measured by routine methods. Results No significant difference was found in frequencies of genotypes and alleles of C923T (Ala308Val) polymorphism among the controls, cerebral hemorrhage patients and cerebral hemorrhage pedigrees. The serum level of TG in the CT genotype of cerebral hemorrhage patients and controls tended toward higher than that in CC genotype, but the trend did not reach significance ($P>0.05$). Conclusion There seems no correlation between C923T (Ala308Val) polymorphism and cerebral hemorrhage in Hans people in Hunan province.

Keywords: cerebral hemorrhage; neutrophil cytosolic factor 1; genetic polymorphism; plasma lipid

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通讯作者: 杨期东, E-mail: xyyqd@hotmail.com

作者简介: 黄晓松, 博士, 副主任医师, 主要从事脑血管病及脑血管介入的基础与临床研究。

作者Email: xyyqd@hotmail.com

参考文献:

- [1] 杨期东,周艳宏,刘运海,等.长沙社区人群脑卒中患者发病的监测研究[J].中华医学杂志,2003,83(4):302-305.
- YANG Qidong, ZHOU Yanhong, LIU Yunhai, et al. Surveillance of incidence of cerebral hemorrhage in community population in Changsha [J]. National Medical Journal of China, 2003, 83(4): 302-305.
- [2] Catto A J. Genetic aspect of the hemostatic system in Cerebrovascular disease [J]. Neurology, 2001, 57(6): 24-30.
- [3] Ogura K, Yuzawa S, Inagaki F, et al. Super-molecular interaction of p47(phox): a regulatory protein of superoxide-producing system in phagocytes [J]. Tanpakushitsu Kakusan Koso, 2005, 50(10 Suppl): 1233-1240.
- [4] Ralf P, Francis J, Stefani B, et al. The vascular NADPH oxidase subunit NCF1 is involved in redox-mediated gene expression [J]. Free Radical Bio Med, 2002, 32(11): 1116-1122.
- [5] Hagenow K, Gelderman K A, Hultqvist M, et al. Ncf1-associated reduced oxidative burst promotes IL-33R+ T cell-mediated adjuvant-free arthritis in mice [J]. J Immunol, 2009, 183(2): 874-881.
- [6] Reddy M K, Labhasetwar V. Nanoparticle-mediated delivery of superoxide dismutase to the brain: an effective strategy to reduce ischemia [J]. FASEB J, 2009, 23(5): 1384-1395.
- [7] Castier Y, Brandes R P, Leseche G, et al. p47phox-dependent NADPH oxidase regulates flow-induced vascular

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remodeling [J]. Circ Res, 2005,97(6): 533-540.

[8] Van Hemelrijck A, Hachimi-Idrissi S, Sarre S, et al. Post-ischaemic mild hypothermia inhibits apoptosis in the penumbral region by reducing neuronal nitric oxide synthase activity and thereby preventing endothelin-1-induced hydroxyl radical formation [J]. Eur J Neurosci, 2005,22(6): 1327-1337.

[9] 黄晓松, 杨期东, 郭田生, 等. p47phox基因第10外显子多态性与脑卒中的关联及其对血脂的影响 [J]. 中华医学遗传学杂志, 2007, 24(5): 524-528.

HUANG Xiaosong, YANG Qidong, GUO Tiansheng, et al. The relation of between the exon 10 of the p47phox polymorphism and stroke and the effect of the polymorphism on plasma lipid [J]. Chinese Journal of Medical Genetics, 2007, 24(5): 524-528.

[10] 王新德. 各类脑血管病诊断要点 [J]. 中华神经科杂志, 1996, 29(6): 379-380.

WANG Xinde. The highlight diagnosis of cerebrovascular disease [J]. Chin J Neurol, 1996, 29(6): 379-380.

[11] Cai H, Li Z, Dikalov S, et al. NAD(P)H oxidase-derived hydrogen peroxide mediates endothelial nitric oxide production in response to angiotensin II [J]. J Biol Chem, 2002, 277(50): 48311-48317.

[12] Shin H K, Kim Y K, Kim K Y, et al. Remnant lipoprotein particles induce apoptosis in endothelial cells by NAD(P)H oxidase-mediated production of superoxide and cytokines via lectin-like oxidized low-density lipoprotein receptor-1 activation: prevention by cilostazol [J]. Circulation, 2004, 109(8): 1022-1028.

[13] van de Vosse E, van Wengen A, van Geelen J A, et al. A novel mutation in NCF1 in an adult CGD patient with a liver abscess as first presentation [J]. J Hum Genet, 2009, 54(6): 313-316.

[14] Myeung J K, Kyung-Sue S H, Young-Bae C H, et al. Immunohistochemical study of p47phox and gp91phox distributions in rat brain [J]. Brain Res, 2005, 1040: 178-186.

[15] Nakano T, Matsunaga S, Nagata A, et al. NAD(P)H oxidase p22phox gene C242T polymorphism and lipoprotein oxidation [J]. Clin Chim Acta, 2003, 335(1): 101-107.

[16] Oliveira H C, Cosso R G, Alberici L C, et al. Oxidative stress in atherosclerosis prone mouse is due to low antioxidant capacity of mitochondria [J]. FASEB J, 2005, 19(2): 278-280.

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2. 张花先; 黎杏群; 唐涛; 梁清华; 刘柏炎; 李霞玲; .脑溢安颗粒对脑出血大鼠脑组织bcl-2表达的影响[J]. 中南大学学报(医学版), 2002,27(1): 38-
3. 肖岚; 黎杏群; 张花先; .脑溢安颗粒对脑出血大鼠脑内IL-6表达的影响[J]. 中南大学学报(医学版), 2002,27(2): 123-
4. 孙建军¹, 刘勇², 张蓬勃³, 陈新林², 郭振宇¹, 张建水², 杨蓬勃². 大鼠脑出血后行为学改变和室管膜下区细胞增殖规律[J]. 中南大学学报(医学版), 2009,34(03): 236-241
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6. 张花先; 黎杏群; 唐涛; 梁清华; 李霞玲. 实验性脑出血大鼠脑组织Bcl-2, Bax蛋白表达特点及中药干预[J]. 中南大学学报(医学版), 2003,28(3): 229-
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8. 王知非, 刘飞*, 廖达光, 张天一. 神经内镜手术治疗高血压脑出血[J]. 中南大学学报(医学版), 2005,30(4): 424-426
9. 武衡; 黎杏群; 唐涛; 黄菊芳; 罗杰坤; 梁清华. 脑溢安对脑出血大鼠脑源性神经营养因子蛋白表达的影响[J]. 中南大学学报(医学版), 2003,28(5): 485-
10. 谭勇, 梁清华*, 李霞玲, 张花先, 李春燕, 包太成, 李春燕. 平肝熄风汤对脑出血大鼠海马线粒体膜电位的影响[J]. 中南大学学报(医学版), 2004,29(1): 35-38
11. 肖岚, 黎杏群*, 张花先, 唐涛, 梁清华. 脑溢安颗粒对脑出血大鼠脑内IL-6 mRNA及蛋白表达的影响[J]. 中南大学学报(医学版), 2004,29(2): 177-180
12. 罗团连; 黎杏群; .脑溢安对出血性中风大鼠脑损伤保护作用[J]. 中南大学学报(医学版), 2000,25(3): 245-
13. 张乐¹, 胡中扬¹, 杨杰¹, 李蜀渝¹, 曾艺², 刘宝琼¹, .KLK1基因rs3212855和rs5515多态性与长沙地区汉族人群脑出血的关联研究[J]. 中南大学学报(医学版), 2010,35(12): 1225-
14. 程艳春; 王立庄; 赵水平; 吴祖林; .脑卒中急性期血脂动态变化[J]. 中南大学学报(医学版), 2000,25(5): 489-
15. 唐涛; 梁清华; 黎杏群; 何纲; 张花先; .脑溢安对实验性脑出血大鼠细胞色素c氧化酶活性的影响[J]. 中南大学学报(医学版), 2000,25(6): 542-