

专栏

天花粉提取物对HepG2.2.15细胞HBsAg和HBeAg表达的影响

陈佳¹, 许昭发¹, 欧阳红涛², 彭敏源³, 吴婷¹, 刘静¹, 刘艳平¹, 言惠文¹

1. 中南大学生物科学与技术学院, 长沙 410013;
2. 湖南省第二人民医院, 长沙 410007;
3. 中南大学湘雅医院血液科, 长沙 410008

摘要:

目的:探讨天花粉水提取物、醇提取物对HepG2.2.15细胞的增殖及培养细胞上清中HBsAg与HBeAg表达的影响。**方法:**用MTT方法检测HepG2.2.15细胞的存活率,以酶联免疫法(ELISA)检测HepG2.2.15细胞上清液HBsAg和HBeAg的表达量。**结果:**天花粉水提取物和醇提取物处理HepG2.2.15细胞后HBsAg和HBeAg的表达均呈时间依赖性和浓度依赖性抑制,但天花粉水提物的治疗指数明显优于醇提物。**结论:**天花粉水提物较醇提物有更好的抗HBV活性。

关键词: 天花粉 HepG2.2.15细胞 HBsAg HBeAg

Effect of extracts from *Radix Trichosanthis* on the expression of HBsAg and HBeAg in HepG2.2.15 cells

CHEN Jia¹, XU Zhaofa¹, OUYANG Hongtao², PENG Minyuan³, WU Ting¹, LIU Jing¹, LIU Yanping¹, YAN Huiwen¹

1. School of Biological Science and Technology, Central South University, Changsha 410013;
2. Second People's Hospital of Hunan Province, Changsha 410007;
3. Department of Hematology, Xiangya Hospital, Central South University, Changsha 410008, China

Abstract:

Objective: To investigate the effect of extracts with water and alcohol from *Radix Trichosanthis* on the cell survival and the expression of hepatitis B surface antigen (HBsAg) and hepatitis B e-antigen (HBeAg) in HepG2.2.15 cell supernatant. **Methods:** The cell survival rate of HepG2.2.15 cells was detected by MTT assay. The HBsAg and HBeAg in HepG 2.2.15 cell supernatant were evaluated by enzyme linked immunosorbent assay. **Results:** The water and alcohol soluble extracts from *Radix Trichosanthis* significantly inhibited the levels of HBsAg and HBeAg in HepG2.2.15 cells in a time-and-concentration-dependent manner. However, the therapeutic index of extracts with water from *Radix Trichosanthis* was better than that in the alcohol group. **Conclusion:** The activity of water-soluble extract from *Radix Trichosanthis* is stronger on anti-hepatitis B virus than that of the alcohol-soluble extract.

Keywords: *Radix Trichosanthis* HepG2.2.15 cells HBsAg HBeAg

收稿日期 2011-10-24 修回日期 网络版发布日期

DOI: 10.3969/j.issn.1672-7347.2012.01.007

基金项目:

国家自然科学基金(30971517); 中南大学“大学生创新课题”(YD09194)。

通讯作者: 言惠文,Email: huiwenyan@sohu.com

作者简介: 陈佳,硕士,主要从事抗乙肝病毒中药筛选及医学遗传学研究。

作者Email: huiwenyan@sohu.com

参考文献:

- [1] 周艳萌.抗乙型肝炎病毒的中药研究进展 [J].时珍国医国药,2005, 16 (10): 1043-1045. ZHOU Yanmeng. Advances in research of Chinese medicine on anti-hepatitis B virus [J]. Lishizhen Medicine and Materia Medica Research, 2005, 16(10): 1043-1045.

扩展功能

本文信息

- Supporting info
- PDF(963KB)
- [HTML全文]
- 参考文献[PDF]
- 参考文献

服务与反馈

- 把本文推荐给朋友
- 加入我的书架
- 加入引用管理器
- 引用本文
- Email Alert
- 文章反馈
- 浏览反馈信息

本文关键词相关文章

- 天花粉
- HepG2.2.15细胞
- HBsAg
- HBeAg

本文作者相关文章

PubMed

- [2] Chan WY, Huang H, Tam SC. Receptor-mediated endocytosis of trichosanthin in choriocarcinoma cells [J]. *Toxicology*, 2003, 186 (3): 191-203.
- [3] Wang JH, Tam SC, Huang H, et al. Site-directed PEGylation of trichosanthin retained its anti-HIV activity with reduced potency in vitro [J]. *Biochem Biophys Res Commun*, 2004, 317(4) : 965-971.
- [4] 吴沛田.天花粉治疗慢性乙型肝炎 [J]. *中医杂志*,2006, 47(9):651.WU Peitian. Treating chronic hepatitis B with Radix Trichosanthis [J]. *Journal of Traditional Chinese Medicine*, 2006,47(9): 651.
- [5] 应国红,罗国生.中草药抑制HBsAg的实验研究 [J]. *江西中医学院学报*, 2002, 14(1): 31-32. YING Guohong,LUO Guosheng. Experimental study on the inhibition effects of chinese medicinal herbs on HBsAg [J]. *Journal of Jiangxi College of Traditional Chinese Medicine*, 2002, 14(1):31-32.
- [6] R.I. 弗雷谢尼.动物细胞培养—基本技术指南 [M]. 章静波,徐存栓,译.4版.北京:科学出版社,2004:398-402. R.I. Freshney. *Culture of Animal Cells: a Manual of basic technique* [M]. ZHANG Jingbo, XU Cunshuan, translated. 4th ed. Beijing: Science Press, 2004: 398-402.
- [7] 徐叔云.药理实验方法学 [M]. 3版.北京:人民卫生出版社, 2002: 1757-1758. XU Shuyun. *Experimental methodology of pharmacology* [M]. 3rd ed. Beijing: People's Medical Publishing House, 2002:1757-1758.
- [8] 唐庆年,冯梅,龚受基,等.雪灵芝提取物对HepG2.2.15细胞株HBsAg与HBeAg表达的影响 [J]. *中药材*,2008,8(31):1212-1216. TANG Qingnian, FENG Mei, GONG Shouji, et al. The effects of extracts from *Arenaria Kansuensis* on the levels of HBsAg and HBeAg in HepG2.2.15 cells [J]. *Journal of Chinese Medicinal Materials*, 2008,8(31):1212-1216.
- [9] Sells MA, Zolent AZ, Shvartsman M, et al. Replicative intermediates of hepatitis B virus in HepG2 cells that produce infectious virions [J]. *Journal of virology*,1988, 62(8):2836-2844.
- [10] 李振红,陆阳,刘晶星.天花粉化学成分与药理活性 [J]. *国外医药·植物药分册*,2003,18(1):1-4. LI Zhenhong,LU Yang,LIU Jingxing. Analysis chemical composition and pharmacological activities of radix trichosanthis [J]. *World Phytomedicines*,2003,18(1):1-4.
- [11] 龚建锋,俞明义.天花粉研究进展 [J]. *浙江中西医结合杂志*,2008,18(4):263-264. GONG Jianfeng, YU Mingyi. Review of Radix Trichosanthis research [J]. *Zhejiang Journal of Integrated Traditional Chinese and Western Medicine*,2008,18(4):263-264.
- [12] 安群星,穆士杰,张献清,等.突变型天花粉蛋白TCS_{YFF81_83ACS}的生物活性及免疫原性分析 [J]. *细胞与分子免疫学杂志*,2007,23(11):1069-1071. AN Qunxing, MU Shijie, ZHANG Xianqing, et al. Analysis the biological activity and immunogenicity of mutated trichosanthin TCS_{YFF81_83ACS} [J]. *Journal of Cellular and Molecular Immunology*,2007,23(11):1069-1071.

本刊中的类似文章

1. 刘智显¹, 李夏雨¹, 颜雪梅², 陈立章¹.应用巢式病例对照探讨HBV围生期传播的影响因素 [J]. *中南大学学报(医学版)*, 2007,32(03): 451-454