肿瘤防治研究 2007, Vol. 34 Issue (10): 747-750 DOI:

^{188}Re 标记DTPA-DG对肺癌A549 细胞增殖的影响

熊青峰[1],陈 跃[1],何 菱[2],邓存良[3],黄占文[1],李举联[2]

1. 646000 四川泸州医学院附属医院核医学科;2. 四川大学华西药学院;3. 四川泸州医学院附属医院传染科

Influence of ^{188}Re-DTPA-DGon Proliferation of Pulmonary Carcinoma Cells

XIONG Qing-feng[1],CHEN Yue[1],HE Ling[2],DENG Cun-liang[3],HUANG Zhan-wen[1],LI Ju-lian[2]

1. Department of Nuclear Medicine , Affiliated Hospital of Luzhou Medical College , Luzhou 646000 ,China;2. West China School of Pharmacy , Sichuan University ;3. Department of Infection , Affiliated Hospital of Luzhou Medical College

摘要 目的 研究不同浓度^{188}Re-DTPA-DG（^188Re标记二乙三胺五乙酸-葡糖胺）对人肺癌细胞A549增殖的影响，探讨其作用机制。方法 将人肺癌细胞A549分成3组，实验组（^{188}Re-DTPA-DG组）、对照组（^{188}Reoi淋洗液、缓冲液及等量的DTPA—DG）及生理盐水组（含生理盐水及等量缓冲液），前两组均设三种不同浓度，148、296、444MBq / L。观察细胞形态，采用四氮唑盐比色法（MTT法）评价^{188}Re-DTPA-DG对癌细胞A549增殖的影响。结果^{188}Re-DTPA-DG导致的细胞损伤比^188Re04-明显；随着药物浓度增加^{188}Re-DTPA-DG导致的损伤越显著。结论^{188}Re-DTPA-DG对肿瘤细胞增殖有较明显的抑制效应，其机制可能是由于^{188}Re-DTPA-DG进入到细胞内，其辐射效应更能导致肺癌细胞损伤。

关键词： ^{188}Re-DTPA-DG 人肺癌细胞(A549) 细胞增殖 MTT 比色法

Abstract: Objective To investigate the influence of ^{188}Re-DTPA-DG on human pulmonary carcinoma cell line and elucidate its possible mechanism. Methods A549 cells were cultured , they were divided into 3groups , namely ,^{188}Re-DTPA-DG,control , saline group ,and the former two groups were divided into 3 groups respectively by 3 different concent rations (148 、296 、444MBq/ L) ,then they were acted on respectively through a night . Cell growth was assessed with MTT before the appearance of the cells was watched with microscope. Results The ability of growth was inhibited in about 16 hours ,and the inhibiting ratio was higher in ^{188}Re-DTPA-DG group than in cont rol group (P < 0. 001) . In ^{188}Re-DTPA-DG group ,when there is a higher concent ration , the inhibiting ratio also becomes higher ;while in ^{188}ReO $_4^-$ group ,it does not . Conclusion The influence of ^{188}Re-DTPA-D Gis superior to ^{188}ReO $_4^-$ on human pulmonary carcinoma cells ,which may cont ribute to the mechanism that ^{188}Re-DTPA-DG can be involved in tumor cells while ^{188}ReO $_4^-$ can not ,and the cell injury extent occurred by them is different .

Key words: ^{188}Re-DTPA-DG Human Pulmonary Carcinoma Cell (A549) Cell Proliferation MTT Chromatometry

收稿日期: 2006-09-26;

通讯作者: 陈 跃

引用本文:

熊青峰,陈 跃,何 菱等. ^{188}Re 标记DTPA-DG对肺癌A549 细胞增殖的影响[J]. 肿瘤防治研究, 2007, 34(10): 747-750.

XIONG Qing-feng,CHEN Yue,HE Ling et al. Influence of ^{188}Re-DTPA-DGon Proliferation of Pulmonary Carcinoma Cells[J]. CHINA RESEARCH ON PREVENTION AND TREATMENT, 2007, 34(10): 747-750.

没有本文参考文献

[1] 王炜;王志彬;高玉环 . 国产雷帕霉素对人淋巴瘤细胞Raji增殖的影响[J]. 肿瘤防治研究, 2012, 39(2): 157-160.

[2] 牛国晓;李洁. 半枝莲抗肿瘤机制研究进展[J]. 肿瘤防治研究, 2012, 39(2): 231-233.

[3] 何伶芳;高倩颖;侯亚义;. 灵芝孢子油对人胃腺癌细胞BGC823的抑制作用[J]. 肿瘤防治研究, 2011, 38(7): 761-763.
[4] 董林;葛瑞民;祁楠;沈丽. shRNA腺病毒介导的JNK1 RNAi抑制U87MG人胶质瘤细胞的增殖[J]. 肿瘤防治研究, 2011, 38(7): 767-769.
[5] 刘媛媛;贾秀红;李建厂;韩兆东;谢绍华 . Apolloon反义寡核苷酸对K562细胞增殖和凋亡的影响 [J]. 肿瘤防治研究, 2011, 38(6): 636-638.
[6] 王政华;牟平;刘晓梅;朱志图 . 靶向Bcl-xL基因siRNA在前列腺癌细胞增殖和凋亡中的作用[J]. 肿瘤防治研究, 2011, 38(5): 509-511.
[7] 高曰文;朱晨宇;朱耀明;胡汉卿;王艳林;秦 烨. 盐酸普鲁卡因对人结肠癌HT-29细胞的作用及其机制[J]. 肿瘤防治研究, 2011, 38(2): 137-140.
[8] 王琳;吴拥军;刘新奎. 热化疗联合作用抑制人小细胞肺癌细胞增殖的机制[J]. 肿瘤防治研究, 2011, 38(1): 1-4.
[9] 余尚扬;蓝秀万;何 敏;王秋雁. RNA干扰沉默α1，3岩藻糖转移酶-Ⅶ基因对人肝癌细胞增殖的影响[J]. 肿瘤防治研究, 2010, 37(5): 507-510.
[10] 夏启松;刘静维;孙仁宇;修瑞娟. 大黄素对人肺腺癌A549细胞体外增殖凋亡及VEGF和TNF-α分泌的影响[J]. 肿瘤防治研究, 2010, 37(4): 387-391.
[11] 彭秋平;梁后杰;冯青青;柯传庆. 阻断mTOR表达对结肠癌LoVo细胞增殖的影响及机制[J]. 肿瘤防治研究, 2010, 37(3): 291-293.
[12] 王永谦;陆建荣. 4-HPR促髓母细胞瘤细胞凋亡的机制[J]. 肿瘤防治研究, 2010, 37(1): 5-8.
[13] 朱 红;王学伟;袁 君;张 静. 靶向survivin基因siRNA对宫颈癌细胞放射敏感性影响的实验 [J]. 肿瘤防治研究, 2010, 37(1): 30-33.
[14] 冯丽英;秦玉彩;马 丽;尹 希;孙泽明;田 惠. 胃癌组织三叶因子家族的表达与细胞增殖和凋亡的相关性[J]. 肿瘤防治研究, 2010, 37(1): 63-65.
[15] 易芳;许新华;付向阳;戴德兰;李道俊;张昌菊. 塞来昔布对鼻咽癌CNE-2细胞增殖抑制的实验研究 [J]. 肿瘤防治研究, 2009, 36(2): 100-102.