

戊地昔布与吡柔比星联合用药对人肺癌A549细胞的抑制作用

Inhibitory effect of valdecoxib and pirarubicin in combination on human lung cancer A549 cell line

徐清华;陈雪彦;刘焕龙;王永利;李军霞;

摘要:

目的评价戊地昔布与吡柔比星联合应用对人肺癌A549细胞的体外抑制作用。方法实验分为四组,分别为对照组、戊地昔布组、吡柔比星组、戊地昔布和吡柔比星联合用药组。用MTT法检测戊地昔布与吡柔比星对人肺癌A549细胞的抑制率,用中效原理分析两者之间的作用。结果戊地昔布和吡柔比星单独或联合用药可时间和浓度依赖性抑制A549细胞的生长($P<0.05$ 或 $P<0.01$)。联合用药组对肿瘤细胞的抑制率比单独用药组明显增高($P<0.05$ 或 $P<0.01$),其IC50均明显降低,合用指数小于1。按用药顺序:戊地昔布和吡柔比星同时用药的抑制率最高,其次是先用吡柔比星再用戊地昔布,抑制率最低者是先用戊地昔布后再用吡柔比星。戊地昔布和吡柔比星合用不同药物浓度依赖关系:除25 $\mu\text{mol}\cdot\text{L}^{-1}$ 吡柔比星和19 $\mu\text{mol}\cdot\text{L}^{-1}$ 戊地昔布合用组及75 $\mu\text{mol}\cdot\text{L}^{-1}$ 戊地昔布与6.3 $\mu\text{mol}\cdot\text{L}^{-1}$ 吡柔比星合用组略呈拮抗作用,其他组合的合用指数均小于1,呈协同作用。结论戊地昔布和吡柔比星联合应用对人肺癌A549细胞有抑制作用且呈协同效应。

关键词: 戊地昔布;吡柔比星;抗肿瘤联合化疗方案;肿瘤细胞,培养的;人肺癌A549

基金项目: 河北省科技攻关资助项目(07276403D);; 河北省卫生厅医学重点课题(2008067、20090358);; 河北省廊坊市课题(2010013123)

通讯作者: 徐清华;

Email:

参考文献:

- [1]MORTENSON MM,SCHLIEMAN MG,VIRUDACHALAM S,et al.Effect of the proteasome inhibitor bortezomib alone and in combination with chemotherapy in the A549 non-small-cell lung cancer cell line[J].Cancer Chemother Pharmacol,2004,54(4):343-353.
- [2]李军霞,苏素文,梅和珊,等.戊地昔布抑制人胃癌细胞的生长[J].中国药理学通报,2004,20(4):458-464.
- [3]李军霞,师晨霞,苏素文,等.戊地昔布抑制clone26肿瘤细胞增生及机制[J].中国药学杂志,2007,42(6):441-444.
- [4]PATEL KM,WRIGHT KL,WHITTAKER P,et al.Differential modulation of COX-2 expression in A549 airway epithelial cells by structurally distinct PPAR(gamma) agonists:evidence for disparate

扩展功能

本文信息

[PDF\(478K\)](#)

参考文献

服务与反馈

引用本文

本文关键词相关文章

[戊地昔布](#)[吡柔比星](#)[抗肿瘤联合化
疗方案](#)[肿瘤细胞,培
养的](#)[人肺癌A549](#)

本文作者相关文章

[徐清华](#)[陈雪彦](#)[刘焕龙](#)[王永利](#)[李军霞](#)

functional effects which are independent of NF-(kappa)B and PPAR(gamma)[J].Cell Signal,2005,17

(9):1098-1110.

[5]王瑞廷,张嫡群,付众.COX-2抑制剂戊地昔布的合成[J].中国新药杂志,2005,14(1):72-74.

[6]TONG N,ZHANG J,CHEN Y,et al.Berberine sensitizes multiple human cancer cells to the anticancer effects of doxorubicin in vitro[J].Oncol Lett,2012,3(6):1263-1267.

[7]SCHWANDT A,GARCIA JA,ELSOB P,et al.Clinical and immunomodulatory effects of celecoxib plus interferon-alpha in metastatic renal cell carcinoma patients with COX-2 tumorimmunostaining[J].J Clin Immunol,2011,31(4):690-698.

[8]曾茂贵,陈立武,郑春松,等.分子对接法探讨扶正抑瘤复方制剂对环氧酶的作用[J].中国新药与临床杂志,2007,26(8):580-585.

[9]LIAO Z,KOMAKI R,MILAS L,et al.A phase I clinical trial of thoracic radiotherapy and concurrent celecoxib for patients with unfavorable performance status inoperable/unresectable non-small cell lung cancer[J].Clin Cancer Res,2005,11(9):3342-3348.

[10]KHAN Z,KHAN N,TIWARI RP,et al.Biology of Cox-2:an application in cancer therapeutics[J].Curr Drug Targets,2011,12(7):1082-1093.

[11]曹静,赵志华,李道明.MTT法测定食管癌细胞株化疗药物敏感性[J].肿瘤基础与临床,2006,19(3):187-188.

[12]CSIKI I,MORROW JD,SANDLER A,et al.Targeting cyclooxygenase-2 in recurrent non-small cell lung cancer:a phase II trial of celecoxib and docetaxel[J].Clin Cancer Res,2005,11(18):6634-6640.

[13]LU X,WEI H,ZHANG X,et al.Rapamycin synergizes with low-dose oxaliplatin in the HCT116 colon cancer cell line by inducing enhanced apoptosis[J].Oncol Lett,2011,2(4):643-647.

[徐清华](#)

[陈雪彦](#)

[刘焕龙](#)

[王永利](#)

[李军霞](#)

Copyright by 中国新药与