

论文

5-Fu联合HER家族靶向药物对食管癌细胞增殖影响

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摘要:

目的 观察常规化疗药物联合表皮生长因子受体(EGFR)靶向药物C225及人表皮生长因子受体-2(HER2)靶向药物trastuzumab对食管鳞状细胞癌细胞株HE-2增殖影响。**方法** 常规化疗药物5-Fu分别与C225及trastuzumab联合应用于食管鳞状细胞癌细胞株HE-2,采用噻唑蓝法以及流式细胞仪检测不同处理组的抗肿瘤效果。**结果** 5-Fu联合C225作用24、48 h时,HE-2细胞增殖抑制率分别为(45.29±0.16)%、(70.63±0.10)%,明显高于5-Fu联合trastuzumab的细胞增殖抑制率(33.02±0.19)%、(50.08±0.20)%,差异有统计学意义($P<0.05$);5-Fu联合C225作用24、48 h时,HE-2细胞凋亡率分别为(15.47±1.62)%、(26.89±1.12)%;明显高于5-Fu联合trastuzumab的细胞凋亡率(7.34±0.88)%、(15.56±0.97)%,差异有统计学意义($P<0.05$)。**结论** EGFR信号通路上的靶向治疗药物C225可以增加5-Fu抗食管鳞状细胞癌作用。

关键词: 5-Fu Her家族 靶向治疗 食管鳞状细胞癌

Influence of 5-FU joint HER family targeted drugs on proliferation of esophageal squamous carcinoma cell

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Abstract:

Objective To observe the influence of conventional chemotherapy drugs combined with epidermal growth factor receptor (EGFR) targeted drug C225 and human epidermal growth factor receptor-2 (HER2) targeted drug trastuzumab on proliferation of squamous cell carcinoma of the esophagus HE-2 cell line. **Methods** Methyl thiazolyl tetrazolium bromide (MTT) assay and flow cytometry were applied to detect the effects of fluorouracil (5-FU) combined with C225 or 5-FU combined with trastuzumab on the proliferation of HE-2 cells. **Results** The *in vitro* experiments showed that after the treatments of 5-Fu combined with C225 for 24 hours and 48 hours, the inhibition rate of HE-2 cell proliferation was 45.29±0.16 and 70.63±0.10, significantly higher than those of 5-Fu combined with trastuzumab (33.02±0.19 and 50.08±0.20) ($P<0.05$ for all). With the treatment of 5-Fu combined with C225 for 24 hours and 48 hours, the apoptosis rate of HE-2 cells was 15.47±1.62% and 26.89±1.12%, significantly higher than those of treatment of 5-FU combined with trastuzumab (7.34±0.88% and 15.56±0.97%) ($P<0.05$ for all). **Conclusion** The targeted drug C225 combined with 5-FU for EGFR pathway shows a synergistic effect on inhibition of the proliferation in HE-2 cells and the signal pathway of EGFR could be as a target for the treatment of human esophageal carcinoma.

Keywords: 5-FU Her family targeted therapy squamous esophageal carcinoma

收稿日期 2013-08-19 修回日期 网络版发布日期 2013-11-27

DOI: 10.11847/zgggws2014-30-02-33

基金项目:

福建省教育厅科技项目(B类JA08086); 泉州市优秀人才培养专项经费(08A19); 泉州市财政局; 科技局技术研究与开发项目(2009Z16)

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