

论著

白藜芦醇对人食管癌EC109细胞的生长抑制及诱导凋亡作用

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收稿日期 2007-1-9 修回日期 网络版发布日期:

摘要 背景与目的: 探讨白藜芦醇(resveratrol,Res)抑制人食管癌EC109细胞生长、诱导凋亡的作用机制。材料与方法: 不同浓度Res作用EC109细胞后,采用MTT法检测Res对人食管癌EC109细胞生长的抑制作用;Hoechst33258荧光染色和倒置相差显微镜观察EC109细胞的形态学改变;流式细胞术分析细胞周期分布和细胞凋亡。结果: Res(15.62~500 μmol/L)可以抑制人食管癌EC109细胞的生长,且具有时间和剂量依赖性(r=0.918、0.996,P<0.05、0.01),500 μmol/L Res作用72 h后对细胞的生长抑制率可达87.43%。500 μmol/L Res作用48 h,荧光染色及相差显微镜下可见典型凋亡细胞形态学改变。细胞周期分析显示Res能诱导EC109细胞在S期停滞,抑制细胞DNA的合成并可明显诱导EC109细胞凋亡,凋亡率最高为62.3%。结论: Res可抑制人食管癌EC109细胞生长,引起细胞周期的S期阻滞,并诱导细胞凋亡。

关键词 [白藜芦醇](#) [食管癌细胞](#) [生长抑制](#) [凋亡](#)

Effects of Growth Inhibition and Apoptosis Induced by Resvera_trol on Human Esophageal Carcinoma EC109 cells

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Abstract 【ABSTRACT】 **BACKGROUND & AIM:** To explore the effects of resveratrol in suppressing growth and inducing apoptosis in human esophageal carcinoma EC109 cells. **MATERIALS AND METHODS:** EC109 cells were treated with resveratrol at different concentrations,methyl thiazolyltetrazolium (MTT)assay was used to examine the effect of resveratrol on growth of EC109 cells. Hoechst 33258 staining and phase contrast microscope were used to examine the apoptosis status of EC109 cells. The cell cycle arrest and cell apoptosis were analyzed by flow cytometry. **RESULTS:** Resveratrol(15.62—500 μmol/L)could inhibit the growth of EC109 cells in time_and dose_dependent manner. 500 μmol/L resveratrol had 87.43% inhibitory rate on the growth of EC109 cells at 72 h, 48 h after treatment with resveratrol, typical apoptosis was seen under phase contrast microscope and fluorescence microscope in 500 μmol/L treatment groups. Resveratrol could arrest EC109 cells growth in S phase, inhibit DNA synthesis and induce cell apoptosis and the apoptotic ratio was 62.3%. **CONCLUSION:** Resveratrol could inhibit proliferation, cause S phase arrest and induce apoptosis of EC109 cells.

Keywords [resveratrol](#) [esophageal carcinoma cells](#) [growth inhibition](#) [apoptosis](#)

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