

论著

杠柳苷对人食管癌细胞增殖的抑制作用及与Rb蛋白表达的关系

单保恩1/ 赵连梅1/ 何兰欣2/ 邸红琴3/ 任凤芝4

.河北医科大学第四医院科研中心; 2. 河北省肿瘤研究所, 河北 石家庄 050011; 3.华北制药集团新药研究开发有限责任公司, 河北 石家庄 050015; 4河北省胸科医院, 河北 石家庄 050012

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摘要 背景与目的: 分析中药香加皮醇提取物杠柳苷(CPP)对食管癌细胞株TE₁₃的生长抑制作用, 探讨其诱导细胞凋亡和周期阻滞与Rb蛋白表达的关系。材料与方法: 取对数生长期的食管癌细胞TE₁₃, 接种于96孔培养板, 分为实验组、阴性对照组和阳性对照组。实验组加入不同浓度的CPP, 阴性对照孔加入完全培养基, 阳性对照孔加入化疗药物羟甲基喜树碱, 应用MTT法检测CPP对TE₁₃细胞的抑制作用; 光镜下观察TE₁₃细胞的形态学变化; 流式细胞技术检测细胞凋亡率; 免疫组化法检测TE₁₃细胞经药物处理前后去磷酸化Rb蛋白表达的变化。结果: CPP对TE₁₃细胞增殖具有明显的抑制作用(P<0.01), 其药物浓度越大, 作用时间越长, 抑制效应越强; CPP作用48 h时, 对TE₁₃细胞的半数抑制浓度(IC₅₀)为0.61 μg/ml。出现亚二倍体和凋亡峰(Ap); CPP能提高TE₁₃细胞中Rb蛋白的表达(P<0.01)。结论: CPP能显著抑制TE₁₃细胞的增殖, 促进其凋亡, 其作用机制可能与CPP提高Rb蛋白的表达有关。

关键词 [杠柳苷](#); [食管癌](#); [Rb蛋白](#); [香加皮](#)

Effects of Periplocin on Proliferation of Human Esophageal Carcinoma Cell TE-13 and Its Relation With Rb Expression

SHAN Bao_en1, ZHAO Li an_mei 1, HE Lan_xi n2, DI Hong_qi n3, REN Feng_zhi 4

1. Research Center; 2. Institute of Immunology, The Fourth Hospital of Hebei Medical University, Shijiazhuang 050011; 3. New Drug Research and Development Co., Ltd. of North China Pharmaceutical Corporation, Shijiazhuang 050015; 4. The Chest Hospital of Hebei Province, Shijiazhuang 050012, China

Abstract BACKGROUND AND AIM: Effects of periplocin from cortex periplocae (CPP) on proliferation and apoptosis of human esophageal carcinoma cell and its relation with Rb protein expression were investigated. MATERIALS AND METHODS: Esophageal cancer cell line TE₁₃ was co_incubated with different concentrations of CPP and cell proliferation was measured by MTT method. Cell morphology changes were examined by light microscope. Apoptosis was studied by flow cytometry. Rb expression was analyzed by immunohistochemistry method. RESULTS: CPP could inhibit the proliferation of TE₁₃ cells significantly in a dose and time dependent manner (P<0.01). After treatment with CPP, TE₁₃ cells showed morphologic changes of apoptosis. The expression of Rb was enhanced. CONCLUSION: CPP could inhibit the growth of TE₁₃ cells, the mechanism might be related to enhanced Rb expression.

Keywords [periplocin](#) [esophageal carcinoma](#) [Rb](#) [cortex periplocae](#)

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