

论著

杠柳苷对BT_549细胞增殖的抑制作用与p16、p27表达关系的研究

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摘要 背景与目的: 观察杠柳苷对人乳腺癌细胞株BT_549体外增殖抑制的作用, 检测p16和p27的表达, 探讨杠柳苷抑制乳腺癌细胞的可能作用机制。材料与方法: 以不同浓度的杠柳苷(2.5、5.0、10.0 $\mu\text{g/ml}$)干预BT_549细胞, 并设空白对照组, 干预24、48、72 h后, 分别用MTT比色法分析细胞增殖情况; 流式细胞技术检测细胞凋亡与周期分布。半定量RT-PCR、流式细胞技术检测细胞p16、p27 mRNA和蛋白表达水平。结果: 与对照组相比较, 杠柳苷各实验组BT_549细胞增殖水平较对照组明显下降($P<0.01$), 促进细胞凋亡率明显增加($P<0.01$), 实验组细胞发生G0/G1期阻滞, 细胞的p16、p27表达水平显著增高($P<0.01$)。结论: 杠柳苷具有抑制BT_549细胞增殖的作用, 其机制可能与促进p16和p27表达水平的增高有关。

关键词 [杠柳苷](#); [乳腺癌](#); [p16](#); [p27](#)

The Relationship between Suppressive Effects of Cortex Periplocae on BT_549 Cells and Expression of p16 and p27

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Abstract BACKGROUND AND AIM: The suppressive effects of cortex periplocae on human breast cancer BT_549 cells and the expressions of p16 and p27 were analyzed to demonstrate the possible mechanisms. MATERIALS AND METHODS: The suppressive effects of Cortex periplocae on proliferation of BT_549 cells was analyzed with MTT method. The cell cycle and apoptosis rate of BT_549 cells treated with Cortex periplocae were examined by flow cytometry. Expressions of p16 and p27 mRNA and proteins were assessed by semiquantitative RT-PCR and flow cytometry. RESULTS: Cortex periplocae could obviously inhibit proliferation of BT_549 cells ($P<0.01$). Compared to control group, after treatment with Cortex periplocae, the cell number in G0/G1 phase of BT_549 cells was increased($P<0.01$), the apoptosis rate was also increased significantly($P<0.01$) as well as the expression of p16 and p27($P<0.05$). CONCLUSION: Cortex periplocae exerted significant inhibitory effects on BT_549 cells in vitro which was probably related to improving the expressions of p16 and p27.

Keywords [cortex periplocae](#) [breast cancer](#) [p16](#) [p27](#)

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