

英夫利昔单抗联合miR-146a对胃癌细胞的影响

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Title: The effects of infliximab combined with miR-146a on gastric cancer cells

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摘要: 目的: 观察英夫利昔单抗联合miR-146a对胃癌细胞的影响。方法: 将胃癌细胞系SGC-7901分为四组, 即对照组、单抗组、miR-146a组与联合组。对照组不进行处理, 单抗组采用英夫利昔单抗处理48 h, miR-146a组采用miR-146a mimic处理48 h, 联合组采用英夫利昔单抗+miR-146a mimic 处理48 h。MTT检测细胞增殖指数, 流式细胞术检测细胞周期, Transwell小室检测细胞侵袭与迁移, Western Blot检测TNF- α 表达。结果: 单抗组、miR-146a组与联合组的细胞增殖指数、细胞侵袭与迁移个数、TNF- α 相对表达量显著低于对照组($P < 0.05$), 联合组也显著低于单抗组与miR-146a组($P < 0.05$)。单抗组、miR-146a组与联合组的S期比例显著高于对照组($P < 0.05$), G0/G1期细胞比例显著低于对照组($P < 0.05$), 联合组与miR-146a组、单抗组比较差异也有统计学意义($P < 0.05$)。结论: 英夫利昔单抗联合miR-146a可对胃癌细胞增殖发挥协同抑制作用, 且可抑制TNF- α 表达、调节细胞周期, 从而抑制细胞增殖、侵袭与迁移。

Abstract: Objective: To investigate the effects of infliximab combined with miR-146a on gastric cancer cells. Methods: The gastric cancer cell line SGC-7901 were divided into four groups, including control group, monoclonal antibody group, miR-146a group and combined group. The control group was not treated. The monoclonal antibody group was treated with infliximab for 48 h. The miR-146a group was treated with miR-146a mimic for 48 h, and the combined group was treated with infliximab+miR-146a mimic for 48 h. Cell proliferation index was detected by MTT. Cell cycle was detected by flow cytometry. Cell invasion and migration were detected by Transwell chamber and TNF- α expression was detected by Western Blot. Results: The cell proliferation index, the number of cell invasion and migration and the relative expression of TNF- α in the monoclonal antibody group, miR-146a group and the combined group were significantly lower than those in the control group ($P < 0.05$), and the combined group was also significantly lower than the monoclonal antibody group and miR-146a group ($P < 0.05$). The proportion of S phase in the monoclonal antibody group, miR-146a group and the combined group were significantly higher than that in the control group ($P < 0.05$), and the ratio of G0/G1 phase cells were significantly lower than that of the control group ($P < 0.05$). There was also statistically significant difference between the combined group and miR-146a group or monoclonal antibody group ($P < 0.05$). Conclusion: Infliximab combined with miR-146a in gastric cancer cells can play a synergistic role. It can inhibit the expression of TNF- α , regulate cell cycle, inhibit cell proliferation, invasion and migration.

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