参术胶囊对脾虚胃癌小鼠**ERK**信号通路中**AP-1**和**IL-2**的影响

投稿时间： 2011-12-31 点此下载全文

引用本文：邓青秀,彭成,敖慧,谢晓芳.参术胶囊对脾虚胃癌小鼠ERK信号通路中AP-1和IL-2的影响[J].中国实验方剂学杂志,2012,18(10):177~182

作者	单位	**E-mail**
邓青秀	成都中医药大学, 成都 610075	
彭成	成都中医药大学, 成都 610075	pengchengcao@163.com
敖慧	成都中医药大学, 成都 610075	
谢晓芳	成都中医药大学, 成都 610075	

基金项目**:**国家"十五"科技攻关项目(2001BA701A-07-19)

中文摘要**:**目的: 研究参术胶囊对脾虚胃癌小鼠细胞外调节蛋白激酶(ERK)信号通路中转录激活蛋白-1(AP-1)和白细胞介素-2(IL-2)的影响,以探讨参术胶囊阻断脾虚胃癌发生的机制。 方法: 随机取17只SPF小鼠作为空白组正常喂养,其余小鼠均首日给予山西白醋15 mL·kg^{-1}·d^{-1}灌胃,次日给予10 mL·kg^{-1}·d^{-1}灌胃,连续9 d,第10天给予*N*-亚硝基二乙胺(DENA)按2.8 mg·kg^{-1}·d^{-1}灌胃,连续110 d,建立脾虚胃癌小鼠模型。将模型动物随机分为模型组、胃复春片718 mg·kg^{-1}·d^{-1}剂量组、参术胶囊440,220,110 mg·kg^{-1}·d^{-1}剂量组,试验组从111 d起灌胃给药,连续30 d。实验结束后,观察各组小鼠一般情况的变化;HE染色观察参术胶囊是否阻断脾虚胃癌的发生;用免疫组化法研究参术胶囊对诱导脾虚胃癌模型ERK1/2,AP-1,IL-2等指标的影响。 结果: 参术胶囊作用脾虚胃癌小鼠模型30 d后,能改善诱发型脾虚胃癌小鼠模型一般状态,其病理表现较模型组明显减轻,免疫组化结果显示胃复春片组和参术胶囊440,220 mg·kg^{-1}·d^{-1}剂量组均能明显增强模型动物ERK1/2,AP-1,IL-2的表达(*P*<0.05,*P*<0.01),参术胶囊110 mg·kg^{-1}·d^{-1}剂量组能明显增强模型动物ERK1/2的表达(*P*<0.01),而对AP-1,IL-2的表达无明显改善。 结论: 参术胶囊可通过ERK信号通路阻断脾虚胃癌发生。

中文关键词**:**ERK信号通路 参术胶囊 脾虚 胃癌

The Effect of Shenzhu Capsules on AP-1 and IL-2 of ERK Signal Pathway in Gastric Cancer Mice with Spleen-deficiency

Abstract: Objective: To study the effect of Shenzhu capsules on AP-1 and IL-2 of ERK signal pathway in the gastric cancer mice with spleen-deficiency and explore the molecular mechanism of Shenzhu Caspules in inhibiting the generation of gastric cancer mice with spleen-deficiency. Method: Seventeen mice were randomly selected as normal group. The other mice were administrated by 15 mL·kg^{-1}·d^{-1}Shanxi white venigar on the first day and 10 mL·kg^{-1}·d^{-1}from the second day for continuous 9 days and by 2.8 mg·kg^{-1}·d^{-1} diethylnitrosamine(DENA) for 110 days to establish gastric cancer mice model with spleen-deficiency.The model mice were divided into model group, Weifuchun group, and 3 doses of Shenzhu capsules groups(440, 220 and 110 mg·kg^{-1}·d^{-1}). The mice of treatmental groups were administracted on the 111th day and for continuous 30 days. The general state of animals were observed,the HE staining was used to study whether Shenzhu capsules inhibited the occurance of gastric cancer with spleen-deficiency and the immunohistochemistry method was used to study the influence of Shenzhu capsules on the ERK1/2,AP-1 and IL-2 expression when the experiment was over. Result: The general state and pathological manifestation of Shenzhu capsule groups mice was improved obviously compared with that of model group ones. The Weifuchun and the 440, 220 mg·kg^{-1}·d^{-1}Shenzhu capsules could obviously strengthen expression of ERK1/2,AP-1 and IL-2(*P*<0.05,*P*<0.01).110 mg·kg^{-1}·d^{-1}Shenzhu capsules could obviously strengthen the expression of ERK1/2(*P*<0.01) but not obviously strengthen the expression of AP-1 and IL-2. Conclusion: Shenzhu capsules can inhibit the occurance of gastric cancer with spleen-deficiency by inactivating ERK signal pathway.

keywords:ERK signal pathway Shenzhu capsules spleen-deficiency gastric cancer

查看全文 查看/发表评论 下载PDF阅读器

地址：北京东直门内南小街16号邮编：100700

电话：010-84076882 在线咨询 京ICP备09084417号