

论著

柴胡皂甙d对狼疮肾炎小鼠尿蛋白含量及肾组织IL-6、IL-10、TNF- α 、IFN- γ mRNA表达的影响

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摘要 目的: 观察柴胡皂甙d (SSd) 对新西兰黑色品系和白色品系杂交的子一代 (NZBWF1) 狼疮肾炎小鼠尿蛋白含量及肾组织IL-6、IL-10、TNF- α 、IFN- γ mRNA表达的影响。方法: 将雌性NZBWF1小鼠分为3组: ① SSd治疗1组 (SSd剂量2 mg·kg⁻¹·d⁻¹); ② SSd治疗2组 (SSd剂量4 mg·kg⁻¹·d⁻¹); ③对照组; 共治疗6周。小鼠尿蛋白含量用考马斯亮蓝法检测, 小鼠肾组织IL-6、IL-10、TNF- α 、IFN- γ mRNA表达用逆转录-聚合酶链反应(RT-PCR)法检测。结果: 实验2周、4周以及6周末, 与对照组相比, SSd治疗1组和SSd治疗2组尿蛋白含量明显降低(P<0.05); 与SSd治疗1组相比, SSd治疗2组尿蛋白含量显著降低(P<0.05)。实验6周末, SSd治疗1组和SSd治疗2组肾组织IL-6和IL-10 mRNA表达水平明显低于对照组(P<0.05); SSd治疗2组IL-6和IL-10 mRNA表达水平显著低于SSd治疗1组(P<0.05)。SSd治疗1组、SSd治疗2组和对对照组相比, 肾组织TNF- α 、IFN- γ mRNA表达水平之间的差异无统计学意义(P>0.05)。结论: SSd可以降低NZBWF1狼疮肾炎小鼠尿蛋白含量并抑制肾组织IL-6、IL-10 mRNA的表达, 而对肾组织TNF- α 、IFN- γ mRNA的表达无影响。

关键词 柴胡皂甙 狼疮肾炎 白细胞介素6 白细胞介素10 肿瘤坏死因子 干扰素 γ

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Effects of saikosaponin-d on urine protein content and expression of IL-6, IL-10, TNF- α , IFN- γ mRNA in renal tissue of NZBWF1 mice

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Abstract

AIM: To observe the effects of saikosaponin-d(SSd) extracted from Bupleurum falcatum L.on urine protein content and expression of IL-6,IL-10,TNF- α ,IFN- γ mRNA in renal tissue of NZBWF1 mice.
METHODS: 20 female NZBWF1 mice,eighteen weeks old,were randomized into three groups:(1) SSd treatment 1st group [intraperitoneal injection(ip) SSd 2 mg·kg⁻¹·d⁻¹];(2) SSd treatment 2nd group (ip SSd 4 mg·kg⁻¹·d⁻¹);(3)Blank control group.The experiment lasted for 6 weeks.Urine protein content in NZBWF1 mice was detected using the method of Coomassie brilliant blue.Expressions of IL-6,IL-10,TNF- α ,IFN- γ mRNA in renal tissue of NZBWF1 mice were detected using reverse transcription-polymerase chain reaction (RT-PCR).
RESULTS: At the end of the 2,4,6 weeks of experiment,compared with the control group,urine protein content was
decreased significantly in the first and second group of SSd treatment (P<0.05).Compared with the first group of SSd treatment,urine protein content was reduced remarkably in the second group of SSd treatment(P<0.05).At the end of the 6 weeks of experiment,compared with the control group,expression of IL-6,IL-10 mRNA in renal tissue was diminished significantly in the first and second group of SSd treatment(P<0.05).Compared with the first group of SSd treatment,the expression of IL-6,IL-10 mRNA was decreased remarkably in the second group of SSd treatment(P<0.05).The differences of expression of TNF- α ,IFN- γ mRNA among three groups were not statistically significant (P>0.05).
CONCLUSION: Urine protein content and expressions of IL-6,IL-10 mRNA in renal tissue of NZBWF1 mice can be
reduced by SSd treatment,while expressions of TNF- α ,IFN- γ mRNA in renal tissue are not affected.

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