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论著

丝瓜络对高脂血症小鼠LDL-R基因表达的影响

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摘要 目的： 观察中药丝瓜络（RLF）对高脂血症小鼠低密度脂蛋白受体（LDL-R）基因表达的影响。方法：用高脂饲料喂养雄性昆明小鼠建立高脂血症模型，以血脂康作为阳性对照观察饲料中补充丝瓜络粉剂喂养对小鼠血清总胆固醇（TC）、低密度脂蛋白（LDL-C）的影响。按Trizol法提取小鼠肝脏总RNA，利用逆转录-聚合酶链反应(RT-PCR)测定LDL-R mRNA的表达，观察其在正常、高脂和给药3种条件下的差异。结果：（1）高脂组小鼠的血清TC和LDL-C分别为（5.71±0.82）和（3.99±1.12）mmol/L，显著高于正常对照组的TC（2.31±0.21）mmol/L和LDL-C（1.72±0.28）mmol/L（P＜0.01），而高脂+丝瓜络组、高脂+血脂康组的TC分别为（3.65±0.28）mmol/L、（3.94±0.65）mmol/L和LDL-C分别为（2.74±0.54）mmol/L、（3.00±0.23）mmol/L,显著低于高脂组（P＜0.01）；（2）与正常对照组比较，高脂组小鼠肝脏LDL-R mRNA的表达减弱（P＜0.01）；与高脂组比较，高脂+丝瓜络组、高脂+血脂康组小鼠肝脏LDL-R mRNA的表达增强（P＜0.01）。结论： 丝瓜络对实验性高脂血症小鼠有明显的降血脂效应，且能使实验性高脂血症小鼠肝组织的LDL-R mRNA表达增强。

关键词 丝瓜络； 高脂血症； 受体,LDL； 基因,LDL-R

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Effects of Retinervus luffae fructus on mRNA expression of low-density lipoprotein receptor in hyperlipidemia mice

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Abstract

<FONT face=Verdana>AIM: To observe the effects of Retinervus luffae fructus (RLF) on mRNA expression of low-density lipoprotein receptor (LDL-R) in hyperlipidemia mice. METHODS: Mice were fed with high fat diet to induce a hyperlipidemia model. By using xuezikang, a Chinese medicine, as a positive control, the effect of RLF on serum total cholesterol (TC) and level of low density lipoprotein cholesterol (LDL-C) in mice were observed. The liver total RNA was extracted by Trizol method. The LDL-R mRNA expression was determined by RT-PCR. RESULTS: (1) The levels of TC [(5.71±0.82) mmol/L] and LDL-C [(3.99±1.12) mmol/L] in hyperlipidemia (HPL) group were higher than those in control (P<0.01). The levels of TC [(3.65±0.28) mmol/L] and LDL-C [(2.74±0.54) mmol/L] in RLF treatment group, and the levels of TC [(3.94±0.65) mmol/L] and LDL-C [(3.00±0.23) mmol/L] in positive control (PC) group were lower than those in HPL group (P<0.01). (2) The level of hepatic LDL-R mRNA expression was lower in HPL group than that in control group (P<0.01). Compared to HPL group, significant increases in hepatic LDL-R mRNA expression in RLF treatment group and PC group (P<0.01) were observed. CONCLUSION: Retinervus Luffae Fructus exerts obviously lipid-lowering effect and enhances the hepatic LDL-R mRNA expression in experimental hyperlipidemia mice.</FONT>

Key words Retinervus Luffae Fructus Hyperlipidemia Receptors LDL Genes LDL-R

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