

论著

脂肝宁对大鼠脂肪性肝炎肝细胞热休克蛋白表达的影响

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摘要 目的: 观察脂肝宁在预防大鼠脂肪性肝炎过程中热休克蛋白(HSP) 60、70在肝细胞中的表达。方法: 将SD大鼠随机分为脂肝宁大、小剂量组、熊去氧胆酸组、病理模型和正常对照组。除正常对照组外, 其余大鼠给予高脂饲料和35%乙醇 10 mL/kg, 2次/d灌胃, 防治组同时给予药物预防。于第9周末处死大鼠, 分别进行(1) 肝组织切片常规HE染色, 观察炎症反应; (2) 免疫组化法观察肝组织热休克蛋白60、70的表达情况; (3) 透射电镜下观察肝细胞及炎细胞的超微结构。结果: (1) 光镜下脂肝宁大剂量组和熊去氧胆酸组的肝组织炎症活动度显著低于病理模型组 ($P<0.05$)。 (2) 脂肝宁大剂量组和熊去氧胆酸组中肝组织HSP70的阳性细胞数显著多于病理模型组和正常对照组 (分别为 $P<0.05$, $P<0.01$), 脂肝宁大剂量组中HSP60的表达显著多于模型组及正常对照组 (分别为 $P<0.05$, $P<0.01$)。 (3) 脂肝宁大剂量组和熊去氧胆酸组肝细胞超微结构较模型组明显改善, 内无明显脂滴, 线粒体嵴排列较整齐。

结论: 脂肝宁、熊去氧胆酸对乙醇加高脂饮食诱发的大鼠脂肪性肝炎有较好的防治作用。提高热休克蛋白60、70的表达可能是其防治机制之一。

关键词 [脂肝宁](#); [中草药](#); [肝炎](#); [热休克蛋白质类](#)

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Effect of zhiganning on the expressions of HSP60 and HSP70 in the hepatocytes of rats undergoing steatohepatitis

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Abstract

AIM: To observe the expressions of HPS60 and HPS70 in hepatocytes in rats under treatment with zhiganning on steatohepatitis. METHODS: Male SD rats were randomly divided into large dose zhiganning group, small dose zhiganning group, ursodeoxycholic acid (UDCA) group, model group, normal control group. Except the normal control group, all the other rats were fed with high fat (88% standard diet, 10% lard, 2% cholesterol) and 35% alcohol 10 mL/kg twice a day. Prophylactic drugs were used at the same time. All rats were sacrificed at the 9th week. Routine histologic features of hepatic sections were observed by HE staining and penetrated electron microscope. The expressions of HSP60 and HSP70 in the liver were detected by immunohistochemistry, respectively. RESULTS: (1) The degree of steatohepatitis in the large dose zhiganning group and ursodeoxycholic acid (UDCA) group were significantly decreased compared with that in model group ($P<0.05$). (2) The expression of HSP70 in the large dose zhiganning group and ursodeoxycholic acid (UDCA) group were significantly higher than that in either model group or normal control group ($P<0.05$, $P<0.01$, respectively). The expression of HSP60 in the large dose zhiganning group was significantly higher than that in either model group or normal control group ($P<0.05$, $P<0.01$, respectively). (3) In the large dose zhiganning group and ursodeoxycholic acid group, ultramicroscopic structure of liver was nearly normal, which was significantly improved compared with model group. CONCLUSION: The results indicate that zhiganning and UDCA effectively prevented the steatohepatitis in rats induced by high fat diet and alcohol. The enhanced expressions of HSP60 and HSP70 may play an important role in the prevention of liver from injury.

Key words [Zhiganning](#) [Drugs](#) [Chinese herbal](#) [Hepatitis](#) [Heat-shock proteins](#)

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