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黄芪甲甙对大鼠阿霉素心肌细胞凋亡的影响

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Effects of Astragaloside on Cardiomyocyte Apoptosis in Adriamycin-Induced Cardiomyopathy in Rats

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- 摘要
- 参考文献
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全文: PDF (531 KB) HTML (1 KB) 输出: BibTeX | EndNote (RIS) 背景资料

摘要 目的 探讨黄芪甲甙对大鼠阿霉素心肌病心肌细胞凋亡及其端粒酶活性表达的影响.方法 雄性SD大鼠，体重250 g左右.建立阿霉素心肌病模型，随机分为黄芪甲甙干预组、模型组（阿霉素组）、正常对照组、正常大鼠黄芪甲甙对照组.用原位末端标记法（TUNEL）标记凋亡的心肌细胞，用TRAP-PCR-ELISA 法检测端粒酶活性.结果 阿霉素组凋亡指数明显高于对照组（P<0.05），黄芪甲甙干预组凋亡指数明显低于阿霉素组（P<0.05），但仍高于对照组（P<0.05）；黄芪甲甙干预组与阿霉素组比较，端粒酶活性明显升高(P<0.05)，但仍低于对照组(P<0.05).结论 心肌细胞凋亡是阿霉素心肌病的重要机制，黄芪甲甙干预治疗可减少阿霉素心肌病的心肌细胞凋亡，可能与黄芪甲甙能提高端粒酶活性有关.

关键词： 黄芪甲甙 阿霉素 心肌 凋亡 端粒酶

Abstract: Objective To explore the effects of Astragaloside on cardiomyocyte apoptosis and the expression of telomerase in adriamycin (ADR)-induced cardiomyopathy in rats.Methods Male SD rats weighing about 250 g were used to establish the model of Adriamycin-induced Cardiomyopathy, then randomized into groups:Astragaloside group, ADR group, control group and control+Astragaloside group.Apoptotic cardiomyocytes were detected using the terminal deoxynucleotidyl transferase mediated dUTP nick end labeling method (TUNEL).The expression of telomerase was determined by TRAP-PCR-ELISA method.Results Compared with control group, ADR group had significantly higher index of apoptotic cardiomyocytes (P<0.05).The apoptotic index in Astragaloside group was less than that in ADR group (P<0.05), however significantly higher than that in control group and control+Astragaloside group (P<0.05).The expression of telomerase in Astragaloside group was significantly higher than that in ADR group(P<0.05), however significantly lower than that in control group and control+Astragaloside group (P<0.05).Conclusions Myocardial apoptosis is an important mechanism of adriamycin-induced cardiomyopathy.Astragaloside therapy can inhibit cardiomyocyte apoptosis in adriamycin-induced cardiomyopathy, partly because it might increase expression of telomerase.

Key words: astragaloside adriamycin myocardium apoptosis telomerase

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