

论著

醛糖还原酶基因C-106T多态性与原发性高血压易感性及其种族差异

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摘要:

目的: 研究中国汉族人群中醛糖还原酶(AR)C-106T基因多态性的分布情况,比较其频率分布是否存在种族差异,并探讨该多态性与原发性高血压易感性的相关性。**方法:** 应用聚合酶链反应-限制性片段长度多态性(polymerase chain reaction-restriction fragment length polymorphism,PCR-RFLP)的分析方法,在148位原发性高血压病人和137位正常受试者中,对AR基因C-106T多态性进行基因分型。频数分布的比较采用卡方检验,基因型与高血压的关联程度采用95%置信区间评估。**结果:** 对照人群中AR C-106T等位的频率为13.9%(95% CI: 11.2%~16.6%),远低于日本人群($n=712$, 18.4%, $P=0.0063$),澳大利亚人群($n=240$, 37.9%, $P<0.0001$)和巴西人群($n=62$, 34.7%, $P<0.0001$)。高血压病例和对照人群中AR-C106T等位基因的频率分别为15.9%(95% CI: 11.6%~20.0%)和11.7%(95% CI: 7.9%~15.5%),两组间基因型分布差异无统计学意义($P=0.147$)。**结论:** 醛糖还原酶AR基因C-106T多态性的频率分布具有明显的种族差异,该多态性与中国人群原发性高血压的发病风险不相关。

关键词: 醛糖还原酶 基因多态性 原发性高血压

Racial difference in aldose reductase C-106T genetic polymorphism and association with essential hypertension

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Abstract:

Objective: To investigate the distribution of aldose reductase (AR) C-106T genetic polymorphism in Chinese Han population and its association with the risk for essential hypertension (EH). **Methods:** The AR C-106T polymorphism was genotyped in 148 Chinese EH patients and 137 controls by polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP). The genotype distribution between groups was contrasted by χ^2 -test and the degree of genetic association was evaluated by 95% confidence interval (CI). **Results:** Frequency of the variant AR C-106T allele was 13.9% (95% CI: 11.2%-16.6%) in the controls, which was significantly lower than that in the Japanese (18.4% in 712 individuals, $P=0.0063$), the Australians (37.9% in 240 individuals, $P<0.0001$) and the Brazilians (34.7% in 62 individuals, $P<0.0001$). The frequency of AR C-106T allele was 11.7% (95% CI: 7.9%-15.5%) in the EH patients. No significant difference in the allele frequency was observed between the EH patients and the controls ($P=0.147$). **Conclusion:** There is obvious racial difference in the distribution of AR C-106T polymorphism. The polymorphism is not associated with the risk for EH.

Keywords: aldose reductase polymorphism essential hypertension

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