

目的 探讨慢性肾脏病 (CKD) 患者非肌性肌球蛋白重链9 (MYH9) 基因多态性与高血压易感性的相关性。方法 收集本院301例CKD患者临床资料, 采用PCR法检测MYH9基因rs3752462、rs4821480两位点基因多态性, 294名体检健康者作为健康对照组。分析不同MYH9基因型CKD患者的发病年龄、性别、收缩压、舒张压、原发病分布频率、服用降压药频率上的差异, 以及rs3752462位点不同基因型与CKD患者高血压易感性的相关关系。结果 单因素分析结果显示, CT基因型患者的收缩压[(147.94±27.40) mm Hg]高于CC基因型[(136.43±19.09) mm Hg, P<0.05]; CC基因型患者使用各种降压药的频率(7.4%)低于TT(43.9%)、CT(48.7%)基因型(P<0.05); 校正年龄因素后, 多因素Logistic回归分析结果显示, rs3752462位点CC基因型是CKD收缩压增高的保护因素, CT基因型CKD患者患高血压的概率是CC基因型的0.175倍。结论 携带MYH9基因rs3752462位点CC基因型的CKD患者相对不易患高血压, CC基因型是CKD患者收缩压增高的保护因素, 等位基因C突变为T可导致收缩压升高。基因检测可作为CKD患者高血压发生率的预测因子之一。

Objective To explore the association between polymorphisms in non-muscle myosin heavy chain 9 gene (MYH9) and hypertension susceptibility in chronic kidney disease (CKD) patients. Methods Five hundred and ninety-five persons, including 301 patients with CKD and 294 healthy controls, were enrolled in the study. Two single nucleotide polymorphisms (SNPs) (rs3752462, rs4821480) were genotyped by TaqMan assay or a restriction fragment length polymorphism assay for a further case-control study. The discrepancies of the patients' quantitative traits (including age, sex, systolic and diastolic blood pressure, frequency of different primary diseases and using different kinds of antihypertensive drugs) among different genotypes of the two MYH9 SNPs were analyzed. Meanwhile, the association between polymorphisms in MYH9 and hypertension susceptibility in CKD patients were analyzed in the rs3752462 site. Results The systolic blood pressure of CT genotype patients[(147.94±27.40) mm Hg] was significantly higher than that of CC genotype patients [(136.43±19.09) mm Hg] by single factor analysis of variance (P<0.05). The frequency of using all kinds of antihypertensive drugs for CC genotype patients (7.4%) was lower than that of TT (43.9%) and CT (48.7%) genotype patients (P<0.05). After correcting the age factor, the result of Logistic regression analysis showed that CC genotype was a protective factor of systolic blood pressure increasing. The probability of high blood pressure for CT genotype patients with CKD was 0.175 times than that of CC genotype (95% CI 0.071,0.431). Conclusions The CKD patients who carry the rs3752462 site CC genotype of MYH9 gene are not prone to high blood pressure. Polymorphism of MYH9 gene rs3752462 site is associated with systolic blood pressure in CKD patients. It may indicate that allele C mutation for T can lead to the increase in systolic blood pressure.



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慢性肾脏病患者非肌性肌球蛋白重链9基因多态性与高血压易感性的研究

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Association between polymorphisms in non-muscle myosin heavy chain 9 gene and hypertension susceptibility in chronic kidney disease patients

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