

论文

CYP1A1及GSTP1基因多态性与肺癌易感性关系

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摘要:

目的 探讨细胞色素P4501A1(CYP1A1)Exon7和谷胱甘肽硫转移酶P1(GSTP1)Ile¹⁰⁵Val基因多态性与内蒙古地区汉族人群肺癌易感性关系。方法 采用等位基因特异性扩增法分析216例汉族对照人群和116例肺癌患者CYP1A1 Exon7和GSTP1 Ile¹⁰⁵Val基因多态性。结果 携带CYP1A1 Exon7突变杂合型和纯合型的个体患肺癌的危险均升高(OR值分别为1.460和1.593),而携带GSTP1 Ile¹⁰⁵Val突变杂合型和纯合型的个体患肺癌的风险均降低(OR值分别为0.970和0.602);CYP1A1 Exon7和GSTP1 Ile¹⁰⁵Val基因在肺癌易感性方面无协同作用;CYP1A1 Exon7与吸烟有协同作用(OR=2.637,95%CI=1.056~6.530,P=0.032),GSTP1 Ile¹⁰⁵Val与吸烟无协同作用。结论 CYP1A1 Exon7突变基因型为肺癌的可疑易感因素,CYP1A1 Exon7突变基因型和吸烟对肺癌易感有协同作用,GSTP1 Ile¹⁰⁵Val突变基因型可降低肺癌易感性。

关键词: 谷胱甘肽硫转移酶P1(GSTP1) 细胞色素P4501A1(CYP1A1) 吸烟 基因多态性 肺癌易感性

Associations of genetic polymorphisms of GSTP1 and CYP1A1 with susceptibility to lung cancer

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Abstract:

Objective To explore the susceptibility of lung cancer in relation to CYP1A1 Exon7 and GSTP1 genetic polymorphisms. Methods CYP1A1 Exon7 and GSTP1 genetic polymorphisms were determined by allele specific amplification(ASA) in 116 lung cancer patients and 216 healthy controls. Results The individuals who carried with CYP1A1 Exon 7 mutant heterozygote and homozygote had a high risk of lung cancer. However, the GSTP1 mutant heterozygote and homozygote were protective factors of lung cancer. The susceptibility to lung cancer associated with CYP1A1 Exon 7 and GSTP1 was not observed. The combined CYP1A1 mutant genotype and smoking were found to be significant risk factors of lung cancer, but not for GSTP1. Conclusion The polymorphisms of CYP1A1 Exon 7 mutant genotype maybe are the suspicious risk factors for lung cancer. The polymorphisms of GSTP1 mutant genotype might reduce the risk of lung cancer. Smoking is a susceptibility factor of lung cancer. There may be no association of CYP1A1 and GSTP1 with susceptibility to lung cancer. The combination of CYP1A1 Exon 7 mutant genotype and smoking could increase the risk of lung cancer, but the polymorphisms of GSTP1 mutant genotype and smoking may reduce the risk of lung cancer.

Keywords: GSTP1 CYP1A1 smoking gene polymorphism lung cancer susceptibility

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