

论文

CYP1A1和GSTM3基因多态性与肺癌易感性关系

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摘要:

目的 研究CYP1A1 Exon7和GSTM3基因多态性与内蒙古地区汉族肺癌易感性的关系。方法 采用等位基因特异性扩增法(ASA)和限制性片段长度多态性(PCR-RFLP)技术对324例汉族非肺部疾病患者和174例汉族肺癌患者进行CYP1A1 Exon7及GSTM3基因多态性分析;同时研究其与吸烟及肺癌之间的相互关系。结果 肺癌组与对照组的CYP1A1 Exon7、GSTM3基因多态性差异均无统计学意义($P>0.05$);吸烟人群患肺癌的危险性是不吸烟人群的2.107倍($OR=2.107, 95\%CI=1.44\sim 3.080$);携带CYP1A1 Exon7基因突变纯合型(Val/Val)的个体患肺癌风险增高($OR=1.576$);携带CYP1A1 Exon7基因突变杂合型和突变纯合型(Ile/Val+Val/Val)并且吸烟的个体患肺癌的风险增高($OR=2.503$)。结论 吸烟为肺癌的易感因素,CYP1A1 Exon7基因突变杂合型和突变纯合型是肺癌的可疑易感因素,和吸烟在肺癌易感性方面具有协同作用;GSTM3基因多态性与肺癌易感性无关。

关键词: CYP1A1 Exon7基因 GSTM3基因 多态性 肺癌易感性

Susceptibility of lung cancer and polymorphisms of CYP1A1 and GSTM3 genes

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Abstract:

Objective To explore associations of polymorphisms of CYP1A1 and GSTM3 genes with susceptibility of lung cancer among Han population in Inner Mongolia. Methods Allele specific amplification and PCR-restriction fragment length polymorphism(PCR-RFLP) methods were used to analyze the genes polymorphisms of 324 Han patients without lung diseases and 174 Han lung cancer patients and the relationship between smoking and lung cancer was also analyzed simultaneously. Results There was no significant difference between lung cancer patients and the controls in CYP1A1 and GSTM3 with Chi-square test($P>0.05$). Smokers had a 2.107 odds ratio($OR, 95\%$ confidence interval: 1.44, 3.080) of lung cancer compared to the controls. The risk was increased in the the subjects with CYP1A1 gene homozygous variant(Val/Val), with an OR of 1.576. There was a 2.5-fold increased risk of lung cancer among the subjects with CYP1A1 heterozygote(Ile/Val) and homozygous variant(Val/Val) and smoking. Conclusion Smoking is the risk factor of lung cancer. CYP1A1 heterozygote and homozygous variant were suspicious susceptibility factors of lung cancer. Smoking and CYP1A1 gene variant has synergistic effect on lung cancer susceptibility. There is no relationship of GSTM3 gene polymorphisms and lung cancer susceptibility.

Keywords: CYP1A1 gene GSTM3 gene polymorphism susceptibility of lung cancer

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