

论著

### 高氡暴露地区人群中代谢酶CYP1A1基因多态性与肺癌易感性的关系

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**摘要** 背景与目的: 研究高氡暴露地区人群中CYP1A1基因多态性与肺癌易感性的关系。材料与方法: 采用病例-对照研究方法, 以基因体外扩增限制性片段长度多态性分析(RFLP-PCR)技术, 对高氡暴露地区53例肺癌患者和72例对照人员进行了代谢酶CYP1A1(MSP I)基因多态性检测, 并分析了不同人群中该基因多态性与肺癌发病风险的关系。结果: 在氡暴露地区CYP1A1(MSP I)基因杂合型人群的肺癌发病的OR(优势比)值为1.03(95%可信限 0.468~2.30)。分层分析: 有效剂量<50 mSv的人群中CYP1A1(MSP I)基因杂合型的肺癌发病风险增至4.29倍(95%可信限 0.582~88.2), 年龄在40~59岁人群中CYP1A1(MSP I)基因杂合型的肺癌发病风险是野生型的1.22倍(95%可信限 0.145~3.65)。结论: CYP1A1(MSP I)基因多态性与肺癌易感性无显著关联, 但CYP1A1(MSP I)基因杂合型对观察人群的肺鳞癌发病风险、有效剂量<50 mSv的人群肺癌发病风险、非吸烟人群的肺癌发病风险和40~59岁人群肺癌发病风险均有增高的趋势。

**关键词** [氡](#); [CYP1A1](#); [基因多态性](#); [肺癌易感性](#)

### Association between Genetic Polymorphisms of CYP1A1 and Lung Cancer Susceptibility for People Living in High Radon-exposed Area

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**Abstract** BACKGROUND AND AIM: To assess the role of genetic polymorphisms of metabolic enzyme Cytochrome P450 1A1(CYP1A1) in the risk of developing lung cancer for the people living in high radon-exposed area. MATERIALS AND METHODS: A case-control study was performed with 53 lung cancer patients and 72 frequency-matched controls. The associations between genotypes and risk of developing lung cancer were estimated by odds ratios (ORs) and their 95% confidence intervals (CIs) calculated by unconditional logistic regression. RESULTS: Risk of developing lung cancer for heterozygous CYP1A1 (MSP I) polymorphism was 1.03-fold (95%CI 0.468—2.28) higher than that for wild type of CYP1A1 (MSP I) polymorphism. Stratified analysis showed that with effective dose<50 mSv the risk of developing lung cancer for heterozygous CYP1A1 (MSP I) polymorphism increased to 4.29-fold (95%CI 0.582—88.2). In people heterozygous for CYP1A1 (MSP I) polymorphism aged between 40 and 59, the risk of developing lung cancer was 1.22-fold higher than that for wild type of CYP1A1 (MSP I) polymorphism. CONCLUSION: The present results indicated genetic polymorphisms of CYP1A1 might increase the risk of developing lung cancer, but the difference was not statistically significant.

**Keywords** [radon](#) [CYP1A1](#) [genetic polymorphisms](#) [lung cancer susceptibility](#)

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