

论著

## p16基因启动子甲基化联合检测在肺癌早期诊断中的临床意义

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收稿日期 2009-7-27 修回日期 2009-9-21 网络版发布日期 2010-3-6 接受日期 2009-9-21

**摘要** 目的: 检测可疑肺癌患者外周血血浆、痰液、支气管肺泡灌洗液(BALF)、胸水以及活检组织中p16基因启动子的甲基化状态, 探讨p16基因启动子的甲基化检测在肺癌早期诊断中的意义。方法: 利用甲基化特异性PCR(MSP)检测可疑肺癌患者外周血血浆、痰液、BALF、胸水以及活检组织中p16基因启动子的甲基化状态。结果: 经病理证实, 67例可疑肺癌患者中42例确认为肺癌。p16基因启动子甲基化阳性率在肺癌患者的血浆、痰液、BALF、胸水和活检组织中依次为52.4% (22/42)、47.6% (20/42)、59.5% (25/42)、71.4% (10/14)和61.9% (26/42); 25例良性病变患者中除1例在血液、1例在胸水中检测到异常甲基化外, 其余标本中均未检测到p16基因启动子的异常甲基化(P<0.05)。p16基因甲基化阳性检出率与肺癌的组织类型、临床分期、病理分级以及有无淋巴结和远处转移无关(P>0.05)。结论: MSP检测肺癌患者外周血血浆、痰液、BALF、胸水以及活检组织中p16基因启动子的甲基化状态, 是一项很有潜力的肺癌早期诊断技术。

**关键词** [肺肿瘤](#) [基因,p16](#) [甲基化](#)

分类号 [R734.2](#)

## Clinical significance of detection of p16 gene methylation in early diagnosis of lung cancer

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### Abstract

<FONT face=Verdana>AIM: To investigate the aberrant methylation in the promoter of p16 in plasma, sputum, bronchoalveolar lavage fluid (BALF), pleural effusion and biopsy specimens from suspected lung cancer patients and to evaluate the clinical significance in the early diagnosis of lung cancer. METHODS: Using methylation specific PCR (MSP) for the detection of promoter methylation of p16 gene in plasma, sputum, BALF, pleural effusion and biopsy specimens from suspected lung cancer patients. RESULTS: Of the 67 cases of suspected lung cancer patients, 42 were proved by pathology. The positive percentages of p16 gene promoter methylation of the lung cancer patients are as follows: 52.4% (22/42) in plasma, 47.6% (20/42) in sputum, 59.5% (25/42) in BALF, 71.4% (10/14) in pleural effusion and 61.9% (26/42) in biopsy specimens, respectively; while promoter methylation in p16 gene was found only one in plasma and one in pleural effusion in 25 patients with various benign lesions (P<0.05). The positive expression of p16 gene promoter methylation in lung cancer patients was irrelevant to histological type, clinical stage, pathological grade, lymph node metastasis and distant metastasis of the lung carcinomas (P>0.05). CONCLUSION: Detection of the aberrant methylation in the promoter of p16 gene in plasma, sputum, BALF, pleural effusion and biopsy specimens from lung cancer patients by MSP method is a kind of rising technology with development potential for lung cancer early diagnosis.</FONT>

**Key words** [Lung neoplasms](#) [Genes](#) [p16](#) [Methylation](#)

DOI: 1000-4718

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