

论著

反式- BPDE 诱发人胎气管上皮细胞p53 基因突变的研究

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摘要 目的:探讨苯并(a) 芘在人肺癌发生中的作用。方法:用苯并(a) 芘的代谢产物反式- BPDE ,作用于体外培养的人胎气管上皮细胞8~12 周后,用PCR - SSCP 方法检测p53 抑癌基因第6,7,8 外显子的点突变情况。结果:经反式- BPDE 处理的人胎气管上皮细胞,p53 第7,8 外显子有点突变,而这些细胞都未出现典型的转化细胞形态特征的改变。结论:反式- BPDE可诱发人胎气管上皮细胞p53 基因点突变,此抑癌基因的点突变早于细胞形态学的改变。

关键词 [苯并\(a\) 芘](#) [气管上皮细胞](#) [p53 基因](#) [点突变](#)

STUDY ON THE POINT MUTATION OF THE p53 TUMOR SUPPRESSOR GENE IN HUMAN FETAL TRACHEAL EPITHELIUM CELL TREATED WITH TRANS - BPDE

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Abstract Purpose : In order to study the effects of trans - BPDE on the development in human lung cancer , human fetal tracheal epithelium cells (HFTEs) cultured in vit ro were exposed to t rans - BPDE , a metabolite of benzo (a) pyreneB (a) P . Methods : For 8~12 weeks , the point mutations in exon 6~8 of p53 tumor suppressor gene in these HFTEs were detected by PCR - SSCP assay. Results : The results showed that the HFTEst reated with t rans - BPDE had point mutations in exons 7 and 8 of p53 tumor suppressor gene , even though no malignantly t ransformed characteristics were observed in cellular morphology. Conclusion : these result ssuggest that t rans - BPDE can induce point mutation in p53 tumor suppressor gene in these HFTEs and the point mutation and activation of p53 may occur in the cells before morphological t ransformation.

Keywords [Benzo \(a\) pyrene](#) [tracheal epithelium](#) [p53 tumor suppressor gene](#) [point mutation](#)

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