

论著

烹调胡麻油烟对大鼠肺组织P53和P16蛋白表达的影响

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摘要 背景与目的: 利用大鼠吸入烹调胡麻油烟染毒的动物模型, 探讨烹调胡麻油烟对大鼠潜在致癌性的可能机制。材料与方法: 采用动式吸入胡麻油烟(浓度为 (43.91 ± 14.76) mg/m³)为染毒组, 采用气管注入苯并(a)芘(Benzo(a) Pyrene, BaP), 剂量为每5 d 12 mg/kg (BaP浓度为12 mg/ml)为阳性对照组, 吸入新鲜的空气(20 OC~22 OC)为阴性对照组。每组18只动物, 分3个时相(20、40、60 d)观察肺组织病理形态的变化, 同时采用免疫组织化学法检测肺组织P53蛋白和P16蛋白的表达。结果: 光镜下可见烹调胡麻油烟染毒组动物肺组织病理改变以炎症改变为主, 少数动物肺组织尚有支气管上皮细胞乳头状增生, 且随时相延长, 病理改变更为严重, 尤以第三时相更为明显。P53蛋白在油烟染毒组大鼠肺组织各时相均有不同程度的表达; P16蛋白在各时相均有不同程度的表达减少。结论: 烹调胡麻油烟可引起肺组织病理形态的改变, 可诱导P53蛋白的表达, 引起P16蛋白的表达缺失。

关键词 [烹调胡麻油烟](#); [肺部病变](#); [P53蛋白](#); [P16蛋白](#)

Expression of P53 and P16 protein of Lung Tissues in Rats Exposed to Cooking Siritch Oil Fume

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Abstract BACKGROUND & AIM: To probe the mechanism of potential carcinogenic effect on lung lesion in sprague dawley (Sd) rats inhaled Cooking Siritch Oil Fume. MATERIAL AND METHODS: The pathomorphological variants of lung tissue were observed by microscope, Expression of P53 and P16 protein of Lung Tissues were observed by SABC method. Test animal were randomly divided into 3 test groups, such as exposure group dynamically inhaling (44.44 ± 18.68) mg/m³ CSOF, positive group pouring BaP and negative control group inhaling fresh air. All of the determinations and observations were done at the day 20th, 40th, 60th during the experiment. RESULTS: The main pathological changes of lung tissues in exposure group were inflammation, adenocarcinoma were also found. The expression of P53 protein was positive in exposure group, the expression of P16 protein decline. CONCLUSION: The cooking siritch oil fumes can induce the lung tissue damage.

Keywords [Cooking Siritch Oil Fume \(CSOF\)](#) [Pathological changes](#) [P53 protein](#) [P16protein](#)

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