#### 论著

# 碳酸锂对抗黄曲霉素B1 诱导大鼠肝癌前病变过程中P21、Bcl - 2 蛋白的表达

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摘要 采用肝癌发生的动物模型,观察了碳酸锂(Li2CO3) 对抗黄曲霉素B1 (AFB1) 诱发的大鼠肝癌前病变的组织形态学变化及其P21、Bcl-2蛋白的表达状况。Wistar 大鼠144 只随机分为A、B、C、D 4 组,分别为阴性、阳性对照及Li2CO 同时给药和Li2CO3 先期给药组。于实验第6、9、10wk 分批断头处死动物,取动物的肝脏进行组织形态学检查及免疫组织化学染色。结果发现:C、D 两组动物健康状况明显改善,肝癌前病变程度明显减轻;P21、Bcl-2蛋白在诱癌早期(实验第6wk) 即有表达,第9、0wk 显著提高,呈B 组> C 组> D 组> A 组的趋势,与各组肝脏组织形态学变化一致。提示:Li2CO3 具有明显地对抗和预防化学诱导肝癌的作用 P21、蛋白的动态检测有助于肝癌的早期发现及判断预后。

关键词 P21 Bcl-2 碳酸锂 大鼠肝脏 癌前病变

# EXPRESSION OF P21 AND BcI - 2 PROTEIN IN AFB1-INDUCED RAT HEPATIC PUTATIVE PRENEOPLASTIC LESIONS ALLEVIATED BY Li2CO3

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Abstract In order to observe the histopathological change and the expression of P21 and Bcl - 2 protein in Aflatoxin B1 (AFB1)2induced rat hepatic putative preneoplastic lesions alleviated by lithium carbonate (Li2CO3) . 144 healthy Wistar rat s(155g  $\sim$  175g) were divided randomly into four groups (A , normal cont rol group ; B , positive cont rol group ; C , group t reated with Li2CO3 simultaneously ; D , group pre2t reated with Li2CO3) and sacrificed in batches in the 6th , 9th or 10th week of the experiment . Histopathological assay and immunohistochemical assay of P21 and Bcl - 2 protein was made on hepatic. The result showed that the severity of prenoplasm alleviated in Group C and Group D , and that , coinciding with the histopathological discoveries , a tendency of "Group B >Group C > Group D > Group A"could be found in observation of P21 and Bcl - 2 protein expressive , which occurred in the early stage ( the 6th week) and significantly increased in the 9th , 10th week. It suggested that Li2CO3 has definite anticarcinogenic and preventive effect on hepatoma induced by chemicals and the continual analysis of P21 and Bcl - 2 protein may help early discovery and prognostic judgment of hepatoma.

**Keywords** P21 Bcl - 2 Li2CO3 Rat hepatic Preneoplastic lesion

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