

实验报道

## 小鼠感染日本血吸虫后肝组织Bcl-2、Bax的表达及己酮可可碱对它的作用

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摘要

目的 观察凋亡相关基因Bcl-2、Bax在小鼠感染血吸虫后肝组织中的表达情况及己酮可可碱(pentoxifylline, PTX)对其作用。方法 将40只小鼠随机分为4组,其中3组每只小鼠人工感染日本血吸虫尾蚴25条,1组感染后继续喂养10周,不作治疗,作为感染对照组;2组分别于感染后2周用PTX 360 mg/(kg·d)和180 mg/(kg·d)灌胃治疗8周;另1组不感染、也不接受药物治疗,与上述3组同步喂养10周,作为正常对照组。10周后将上述4组小鼠分别剖杀取肝组织,光镜观察肝组织病变;用免疫组化染色方法检测小鼠肝组织中Bcl-2、Bax的水平。结果 感染对照组中Bcl-2和Bax的表达水平较正常对照组明显增加( $P < 0.05$ )。高剂量PTX治疗组Bcl-2水平明显高于低剂量PTX治疗组和感染对照组( $P < 0.05$ )。而Bax的表达水平在感染对照组、低剂量PTX治疗组、高剂量PTX治疗组等3组间差异无统计学意义( $P > 0.05$ )。同时高剂量PTX治疗组肝组织变性坏死及纤维化程度较低剂量PTX治疗组和感染对照组轻。结论 高剂量PTX可能通过促进Bcl-2表达,减少肝细胞的变性坏死,阻断血吸虫肝纤维化的发生。

关键词 [日本血吸虫](#) [Bcl-2](#) [Bax](#) [己酮可可碱](#)

分类号

## Expression of Hepatic Bcl-2 and Bax Proteins in Schistosome-Infected Mice and the Role of Pentoxifylline

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Abstract

Objective To study the expression of hepatic Bcl-2 and Bax proteins in mice infected with *Schistosoma japonicum* and the role of pentoxifylline (PTX) in the expression. Methods Forty mice were randomly divided into 4 groups: one normal control group, mice in the other three groups were all infected each with 25 cercariae, the infected control group was fed for 10 weeks after infection, and 2 weeks after infection, the high dose PTX group was given PTX 360 mg/(kg·d) for 8 weeks and the low dose PTX group was given PTX 180 mg/(kg·d) also for 8 weeks. At the end of 10 weeks all the mice were killed. Bcl-2 and Bax proteins expression was detected by immunohistochemistry. Results Compared with the normal control group, the expression of Bcl-2 and Bax was significantly higher in the infected control group ( $P < 0.05$ ). Bcl-2 was significantly higher in high dose PTX group than in the infected control group and in low dose PTX group ( $P < 0.05$ ). However there was no significant difference in the expression of Bax among the groups ( $P > 0.05$ ). Conclusion PTX treatment can significantly increase the expression of Bcl-2 in liver tissue of schistosome-infected mice in a dose-dependent manner, and may play a role against liver inflammation and schistosomiasis-related liver fibrosis.

Key words [Schistosoma japonicum](#) [Bcl-2](#) [Bax](#) [Pentoxifylline\(PTX\)](#)

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