

实验报道

卡氏肺孢子虫感染大鼠肺肝脾微量元素的测定

段义农,李荣,周全,彭光仁

南通医学院寄生虫学教研室;南通 226001

收稿日期 修回日期 网络版发布日期 接受日期

摘要

目的 研究卡氏肺孢子虫(Pc)感染对大鼠肺、肝、脾组织中6种微量元素(Ca²⁺、Mg²⁺、Fe²⁺、Cu²⁺、Zn²⁺、Mn²⁺)的影响。方法 30只SD大鼠随机分为实验组和对照组。实验组每只大鼠皮下注射地塞米松1 mg/次,每周2次,诱导Pc感染。10 wk后处死大鼠,检查Pc包囊,实验组分为Pc感染组和Pc阴性组。取肝、肺、脾组织,用原子吸收分光光度计测定其微量元素的变化。结果 与Pc阴性组及对照组相比较,Pc感染组肺组织Zn²⁺含量明显低于对照组(P<0.05),Ca²⁺、Mg²⁺含量明显高于对照组(P<0.05),Fe²⁺、Cu²⁺、Mn²⁺含量变化不明显;感染组肝组织Zn²⁺含量明显低于对照组(P<0.05),Mg²⁺的含量增加(P<0.05),Ca²⁺、Fe²⁺、Cu²⁺、Mn²⁺的含量变化不明显;感染组脾脏中Zn²⁺、Cu²⁺的含量明显低于对照组(P<0.05),Ca²⁺、Mg²⁺、Fe²⁺、Mn²⁺的含量变化不明显。结论 Pc感染大鼠肺、肝、脾组织微量元素的含量发生改变。

关键词 [卡氏肺孢子虫](#) [微量元素](#) [肺](#) [肝](#) [脾](#) [大鼠](#)

分类号

Analysis of Trace Elements in Lung,Liver and Spleen of Rats Infected with Pneumocystis carinii

DUAN Yi-nong,LI Rong,ZHOU Quan,PENG Guang-ren

Department of Parasitology;Nantong Medical College;Nantong 226001

Abstract

Objective To study the effect of Pneumocystis carinii (Pc) infection on the level of six trace elements (Ca²⁺, Mg²⁺, Fe²⁺, Cu²⁺, Zn²⁺, Mn²⁺) in the lung, liver and spleen of the rats. Methods 30 rats were randomly divided into two groups: 20 rats in the experimental group and 10 in the control group. Each rat in the experimental group was injected subcutaneously with dexamethasone (1 mg per rat) twice a week. All rats in the experiment group (Pc infected and PC negative) and the control group were killed to obtain lungs, livers and spleens after 10 weeks and the atomic absorption method was used for element analysis. Results Compared with the Pc negative group and the control group, the level of Zn²⁺ in the lung in Pc infected group was significantly reduced (P<0.05). The amount of Ca²⁺ and Mg²⁺ in the infected rats were higher than that of the control (P<0.05). No difference was determined in the content of Fe²⁺, Cu²⁺ and Mn²⁺ among the Pc infected group, the Pc negative group and the control group. The level of Zn²⁺ in liver in the Pc infected group was significantly reduced (P<0.05). The amount of Mg²⁺ in the Pc infected rats was higher than that of the control (P<0.05), but no difference was found in the content of Ca²⁺, Fe²⁺, Cu²⁺ and Mn²⁺ among the groups. The level of Zn²⁺ and Cu²⁺ in spleen in Pc infected group was significantly reduced (P < 0.05), and no difference was found in the content of Ca²⁺, Mg²⁺, Fe²⁺ and Mn among the three groups. Conclusion Pneumocystis carinii infection might play a role in the changes of trace elements in the lung, liver and spleen of rats.

Key words [Pneumocystis carinii](#) [trace element](#) [lung](#) [liver](#) [spleen](#) [rat](#)

DOI:

通讯作者

作者个人主页

段义农;李荣;周全;彭光仁

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(248KB\)](#)

▶ [\[HTML全文\]\(OKB\)](#)

▶ [参考文献\[PDF\]](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“卡氏肺孢子虫”的相关文章](#)

▶ 本文作者相关文章

· [段义农](#)

· [李荣](#)

· [周全](#)

· [彭光仁](#)