

论著

## 奋斗呐对白纹伊蚊血淋巴元素与氨基酸含量的影响

陈佩惠, 李凤舞, 卞英华, 曾昭晖

首都医科大学 北京 100054

收稿日期 修回日期 网络版发布日期 接受日期

摘要

目的: 对奋斗呐灭蚊作用机理进行探讨。方法: 以3种不同浓度(2.79, 1.39与0.70  $\mu\text{mol/L}$ )奋斗呐(顺式氯氰菊酯)处理白纹伊蚊4龄幼虫, 并收集初羽化雌蚊血淋巴, 分别检测奋斗呐组和对照组的蚊血淋巴元素和氨基酸含量。结果: 比较3种不同浓度用药组与对照组(0.2%丙酮)蚊血淋巴中11种元素的含量。表明2.79  $\mu\text{mol/L}$ 浓度用药组与对照组相比, 除锌、铬、钙外, 其他8种元素含量均显著增高; 而1.39  $\mu\text{mol/L}$ 和0.70  $\mu\text{mol/L}$ 组与对照组相比, 铁、锰等6-7种元素含量较对照组高。比较1.39  $\mu\text{mol/L}$ 和0.70  $\mu\text{mol/L}$ 奋斗呐组与对照组(去氯水)蚊血淋巴中15种氨基酸含量, 2个用药组中的12种氨基酸含量均降低。结论: 奋斗呐对白纹伊蚊成蚊血淋巴中的元素和氨基酸的含量均有一定影响。

关键词 [奋斗呐](#) [顺式氯氰菊酯](#) [白纹伊蚊](#) [微量元素](#) [常量元素](#) [氨基酸](#)

分类号

## INFLUENCE OF FENDONA ON THE CONTENTS OF CHEMICAL ELEMENTS AND AMINO ACIDS IN HEMOLYMPH OF *Aedes albopictus*

Chen Peihui, Li Fengwu, Bian Yinghua, Zeng Zhaohui

Capital University of Medical Sciences, Beijing 100054

Abstract

AIM: To explore the mechanism of the mosquitocidal effect of Fendona. METHODS: The fourth instar larvae of *Aedes albopictus* were treated with different concentration ratios of Fendona (alphamethrin). The hemolymph was collected from early emerged female mosquitoes and then subjected to the detection of chemical elements and amino acids. The contents of elements including Fe, Zn, Cu, Cr, K, Na, Ca, Mg, S, P in three different concentrations (0.70, 1.39 and 2.79  $\mu\text{mol/L}$ ) of Fendona-treated groups and control group (0.2% acetone-treated) were compared. RESULTS: Compared to the control group, there was a significant increase in the contents of 8 kinds of elements except for Zn, Cr and Ca in the 2.79  $\mu\text{mol/L}$  group; while in 1.39  $\mu\text{mol/L}$  and 0.70  $\mu\text{mol/L}$  groups, the contents of Fe, Mn, K and Mg were higher than those in the control group. Comparing the contents of 15 kinds of amino acids in hemolymph among 1.39  $\mu\text{mol/L}$ , 0.70  $\mu\text{mol/L}$  Fendona and the control group, the levels of 12 kinds of amino acids in Fendona groups were decreased. CONCLUSION: Fendona does influence the contents of many kinds of elements and amino acids in the hemolymph of adult *Aedes albopictus*.

Key words [Fendona](#) [alphamethrin](#) [Aedes albopictus](#) [trace element](#) [macro element](#) [amino acid](#)

DOI:

通讯作者

作者个人主页 陈佩惠; 李凤舞; 卞英华; 曾昭晖

### 扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(270KB\)](#)

▶ [\[HTML全文\]\(OKB\)](#)

▶ [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“奋斗呐”的相关文章](#)

▶ 本文作者相关文章

· [陈佩惠](#)

· [李凤舞](#)

· [卞英华](#)

· [曾昭晖](#)