

论著

## 青蒿琥酯预防曼氏血吸虫病的实验研究

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摘要

**目的** 研究青蒿琥酯对小鼠曼氏血吸虫病的预防作用及优化给药方案。**方法** 小鼠尾部接触感染曼氏血吸虫尾蚴后口服青蒿琥酯,灌注法收集计数虫体数和雌虫数,镜检计数肝脏和肠的虫卵,统计减虫率、减雌率和平均产卵量,分析青蒿琥酯不同给药时间、剂量、疗程的预防效果。**结果** 青蒿琥酯预防小鼠曼氏血吸虫病的最佳剂量为 300mg/kg,14、21d 童虫对药物最为敏感,减虫率分别为 84%和 93%。小鼠感染 14d 后每周口服 1 次青蒿琥酯 300mg/kg,连续 4wk,减虫率达 99%;感染 14 或 21d 后每 2wk 口服 1 次青蒿琥酯 300mg/kg,连续 4wk,减虫率达 97%或 96%。各服药组平均产卵量与对照组差异具有显著性意义。**结论** 青蒿琥酯可杀灭曼氏血吸虫童虫,影响雌虫发育产卵,有效预防曼氏血吸虫病。建议应用青蒿琥酯预防曼氏血吸虫病的给药方案为感染 14 或 21d 后首服,每 1 或 2 周服用 1 次。

关键词

[青蒿琥酯](#) [曼氏血吸虫病](#) [药物预防](#)

分类号

## Prophylactic Effect of Artesunate against Experimental Infection of *Schistosoma mansoni*

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Abstract

**Objective** To study the prophylactic effect of artesunate against the infection of *Schistosoma mansoni* in mice and its optimal scheme for preventing schistosomiasis mansoni. **Methods** BALB/c mice were infected by tail dipping method with *S. mansoni* cercariae. Mice were administered orally with artesunate at different developmental stage of the parasite, with different regimens. The reduction rates of total and female worms, the number of eggs in the liver and intestine, and the fecundity were calculated and treated statistically. **Results** The optimal dosage of artesunate to prevent murine schistosomiasis was 300 mg/kg. The parasite was found to be especially susceptible to artesunate in its schistosomula stage of 14 and 21 d after infection, resulting in worm reduction rate of 84% and 93% respectively compared with control. High protection was reached with worm reduction rate of 99% by the regimens of 300 mg/kg once a week for 4 consecutive weeks beginning 14 d after infection. The fecundity was significantly suppressed, suggesting that the drug inhibited sexual maturation of female worms. The effective protection could also be gained with prolonged interval time of two weeks with worm reduction rate of 97% and 96% beginning 14 or 21 d after infection. **Conclusion** Artesunate kills schistosomula and reduces the fecundity of females effectively, the infected mice do not develop schistosomiasis mansoni when treated with artesunate. It's proposed that an optimal scheme for field use be the first administration 14 or 21 days after infection with 1 or 2 weeks interval.

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Key words

[artesunate](#) [schistosomiasis mansoni](#) [chemoprophylaxis](#)

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