

论著

## 蒿甲醚对日本血吸虫磷酸葡萄糖变位酶、醛缩酶、磷酸甘油酸变位酶和烯醇化酶的影响

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摘要

[目的] 观察蒿甲醚 (Art) 对小鼠体内日本血吸虫磷酸葡萄糖变位酶 (GPM)、醛缩酶 (ALD)、磷酸甘油酸变位酶 (PGM) 和烯醇化酶 (ENO) 的影响。[方法] 小鼠感染血吸虫尾蚴 4~5wk 后, 1 次灌服 Art 10 mg/kg 或 30 mg/kg, 并于 24~48h 后剖杀, 收集日本血吸虫雌虫和雄虫, 按 NADPH 的生成量或 NADH 的耗用量测定虫体的上述 4 种酶活力。[结果] 经 Art 10 mg/kg 作用 24h 后, 雌虫的 GPM、ALD、PGM 和 ENO 活力分别较对照组下降 15%、19%、50% 和 46%, 其间差别均具有显著意义, 而雄虫仅 PGM 和 ENO 活力分别下降 22% 和 32%; 48h 后, 雄虫的 GPM 和 ALD 活力亦分别下降 21% 和 18%, 雌虫的 GPM、ALD、PGM 和 ENO 及雄虫的 PGM 和 ENO 活力则进一步下降。经 Art 30 mg/kg 作用后 24~48h, 雌虫和雄虫的上述 4 种酶活力均明显下降, 且呈一定的时间效应关系。[结论] Art 对日本血吸虫尤其是雌虫的上述 4 种酶有抑制作用。

关键词 [日本血吸虫](#) [磷酸葡萄糖变位酶](#) [醛缩酶](#) [磷酸甘油酸变位酶](#) [烯醇化酶](#) [蒿甲醚](#)

分类号

## EFFECT OF ARTEMETHER ON PHOSPHOGLUCOMUTASE, ALDOLASE, PHOSPHOGLYCERATE MUTASE AND ENOLASE OF SCHISTOSOMA JAPONICUM HARBORED IN MICE

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Abstract

[Objective] To study the effect of artemether (Art) on phosphoglucomutase (GPM), aldolase (ALD), phosphoglycerate mutase (PGM) and enolase (ENO) of Schistosoma japonicum harbored in mice. [Methods] Mice infected with S. japonicum cercariae for 4~5 wk were treated ig with Art 100 mg/kg or 300 mg/kg and killed 24 h or 48 h after treatment for collection of worms. The activities of GPM, ALD, PGM and ENO in female and male worms were measured by the formation of NADPH or consumption of NADH. [Results] After the worms were exposed in vivo to Art 100 mg/kg for 24 h, the GPM, ALD, PGM and ENO activities in female worms were significantly decreased by 15%, 19%, 50% and 46%, respectively, while in male worms only the PGM and ENO activities were markedly decreased by 22% and 32%, respectively. Following exposure of the worms to Art 100 mg/kg for 48 h, the GPM and ALD activities in male worms were also significantly reduced by 21% and 18%, respectively, while the activities of GPM, ALD, PGM and ENO in female worms and those of PGM and ENO in male worms declined progressively with time. After the worms were exposed in vivo to Art 300 mg/kg for 24~48 h, all the activities of the above-mentioned enzymes in female and male worms declined significantly in a time-related pattern. [Conclusion] Art showed an apparently inhibitory effect on GPM, ALD, PGM and ENO in female schistosomes.

Key words [Schistosoma japonicum](#) [phosphoglucomutase](#) [aldolase](#) [phosphoglycerate mutase](#) [enolase](#) [artemether](#)

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