

论著

## 江汉平原三峡建坝后应对生态环境变化的血防干预措施效果评价

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摘要

目的 评价湖北省江汉平原三峡建坝后应对钉螺生态环境变化的血防干预措施的效果。方法 1987-2005年, 选择垅内型血吸虫病重度流行区潜江市熊口管理区、积玉口镇、浩口镇和张金镇等4个区(镇), 分别采取水旱轮种、稻虾连作、治水改土和调整农村产业结构改造渍害低产田及钉螺孳生环境等4种措施。观察钉螺孳生面积、活螺平均密度及人畜感染率变化情况, 并与对照组(龙湾镇竺场村)比较。人畜感染率调查分别采用大粪量尼龙绢集卵孵化法和塑料顶管法。结果 上述4村, 钉螺孳生面积分别下降100%、51.35%、62.16%和87.88%; 活螺平均密度分别下降100%、69.41%、52.30%和75.77%。人群感染率, 2005年稻虾连作试验区与对照区比较, 下降幅度显著( $\chi^2=39.84$ ,  $P<0.01$ ); 治水改土工程试验区, 1990年比1987年下降73.10% ( $\chi^2=236.10$ ,  $P<0.01$ )。结论 4种干预措施对改造钉螺孳生环境、控制钉螺孳生面积效果显著, 并取得显著的经济效益和对生态环境的保护作用。

关键词 [三峡建坝](#) [地下水位](#) [血吸虫病](#) [改造环境](#) [灭螺](#)

分类号

## Evaluation on Schistosomiasis Control Effect of the Intervention Measures Adapted to the Ecological Environment Changes in Jiang Han Plain Due to Establishment of the Three Gorges Dam

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Abstract

Objective To evaluate the effect of the intervention measures for schistosomiasis control adapted to the ecological environment changes in Jiang Han plain caused by the establishment of the Three Gorges Dam. Methods Four villages in Qianjiang City were selected to implement paddy-upland rotation, crawfish-paddy alternation, water control and soil improvement, and adjusting agricultural structure to rebuild the waterlogging low yielding land and to change the snail habitat environment respectively. The snail habitat area, mean density of living snails and prevalence of schistosomiasis in human and cattle were compared with those of the control villages. Miracidia hatching methods were used to examine the prevalence in human and cattle. Results In the four experimental villages, the snail-ridden area decreased by 100%, 51.35%, 62.16% and 87.88% respectively; mean density of living snails decreased by 100%, 69.41%, 52.30% and 75.77%, with a t value of 9.37, 4.91, 2.31 and 9.16,  $I'<0.01$ . Human prevalence of schistosomiasis in 2005 in village with crawfish-paddy alteration decreased significantly than control ( $\chi^2=39.84$ ,  $I'<0.01$ ); decreased by 73.10% in village with water control and soil improvement in 1990 than in 1987 ( $\chi^2=236.10$ ,  $P<0.01$ ). Conclusion Implementation of the four intervention measures reaches a remarkable benefit in reforming snail habitat and protecting environment, which can be recommended to the inner embankment type endemic regions.

Key words [Three Gorges Dam](#) [Underground water level](#) [Schistosomiasis](#) [Environmental change](#) [Snail control](#)

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