

论著

丝虫病传播阻断后残存传染源的微丝蚴密度消长及传播作用

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摘要

目的 观察传播阻断后班氏丝虫病残存微丝蚴血症者微丝蚴密度消长、持续时间及人群新感染情况。方法 选择湖南省吉首市儿科坨寨作为观察点, 进行22年纵向观察(1984-2005年), 应用常规厚血膜法定期进行全民血检, 观察残存微丝蚴血症者的微丝蚴密度消长和自然转阴情况, 以及新感染情况。应用间接荧光抗体试验(IFAT)和丝虫特异IgG4试剂盒检测人群丝虫抗体水平。在传播季节解剖致倦库蚊观察幼丝虫的感染率和感染度。以询问病史和体格检查方法观察残存微丝蚴血症者的临床症状和体征。结果 基本消除丝虫病后的19年间, 10次全民血检共检出微丝蚴血症者4例, 其中原微丝蚴血症者3例, 新感染者1例。4例微丝蚴血症者中, 1例7年内自然转阴, 1例第9年转阴后第12年又查到微丝蚴, 至第13年自然转阴, 另1例第14年转阴后第19、20年又分别查到微丝蚴, 至第21年经乙胺嗪治疗后转阴; 新感染者微丝蚴血症持续5年, 经乙胺嗪治疗后转阴。血清学(IFA、IgG4)检测未发现新的抗体阳性者。致倦库蚊幼丝虫自然感染率及感染度呈逐年下降趋势。结论 丝虫病传播阻断后, 个别残存传染源的微丝蚴血症可持续20年以上。

关键词 [班氏丝虫病](#) [传染源](#) [微丝蚴血症](#) [密度](#) [消长](#) [新感染](#) [传播阻断](#)

分类号

Density Fluctuation of Microfilariae and the Role of Residual Infection Source in Filariasis Transmission after its Interruption

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Abstract

Objective To investigate the density fluctuation of microfilariae, persistence of microfilaremia and possible new infection due to residual microfilaremia in areas with filariasis transmission interrupted. Methods The observation site was made in a village of Jishou City, Hunan Province. Inhabitants were regularly examined by thick blood smear and the density fluctuation of residual microfilaremia in known and newly-found cases were followed up. With a consent from the cases with residual microfilaremia, no treatment was given until they naturally turned negative. Antifilarial antibody level was detected by IFAT and a test kit for filariasis-special IgG4. *Culex quinquefasciatus* was dissected to determine the natural infection rate and density of III stage filarial larvae in transmission season. The identified cases were followed-up by interviews and physical examinations to see if clinical manifestations appeared. Results Blood examination was carried out for all inhabitants for 10 times, 4 cases with microfilaremia, including 3 cases found at the beginning of the project and one newly infected case, were discovered after the interruption of filariasis transmission in the 19-year period. Among the 4 cases followed up, one case naturally turned negative within 7 years, one case became negative in the 9th year but returned positive in the 12th year, and then naturally turned negative in the 13th year. The 3rd case turned negative in the 14th year and was again positive in the 19th and the 20th years, and became negative through diethylcarbamazine (DEC) treatment in the 21st year. The new case was found to have microfilaremia in the 16th year and kept positive for 5 years until DEC treatment. Serological tests (IFAT and special IgG4) revealed no new positive cases. The natural infection rate and larvae density in *Culex quinquefasciatus* decreased annually. Conclusion The persistence period of residual microfilaremia in individual cases might last for more than 20 years after filariasis transmission has been

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Key words [Bancroftian filariasis](#) [Source of infection](#) [Microfilaremia](#) [Density](#)
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页