

论著

# 浸棒-夹心-胶体染料免疫试验检测血吸虫病患者循环抗原方法的建立及应用

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摘要

目的: 建立检测感染宿主血清中循环抗原的简易免疫学试验方法。方法: 从国产的工业染料中首次筛选出 1 种能用于免疫显色反应的淡紫色染料莲 (H F R L), 用 I g M 类别抗日本血吸虫组合单抗 D H C 标记染料, 并探索最适标记条件。建立浸棒 夹心 胶体染料免疫试验 (D S D I A), 检测宿主血清中日本血吸虫循环抗原。结果: D S D I A 检测日本血吸虫 S E A 的最低检出极限为 5 n g / m l, 分别检测急性血吸虫病患者 1 4 例及慢性血吸虫患者 1 1 3 例的血清, 其阳性率分别为 1 0 0 % 和 5 2 . 2 % , 检测正常学生血清 1 1 3 例, 特异性为 9 2 . 9 % 。该法的敏感性及其特异性与 d o t E L I S A 相似, 且两法联合检测可提高检出率, 而特异性不变, 提示两法有一定的诊断互补叠加效应。标记染料室温下保存 1 w k 活性不变。结论: D S D I A 操作简便、试剂价廉, 有广泛的应用潜力。

关键词 [胶体染料免疫试验](#) [日本血吸虫病](#) [循环抗原检测](#)

分类号

## ESTABLISHMENT AND APPLICATION OF DIPSTICK SANDWICH COLLOIDAL DYE IMMUNOASSAY FOR CIRCULATING ANTIGEN DETECTION IN SCHISTOSOMIASIS PATIENTS

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Abstract

AIM: To set up a simple immunoassay for the detection of circulating antigens in host serum. METHODS: A kind of colloidal pale purple dye (HFRL) used as a staining reagent for immunoassay was first selected from the dyes produced in China and an optimum condition for labelling the dye onto the combined IgM antibodies was explored. A dipstick sandwich colloidal dye immunoassay (DS DIA) for the detection of circulating antigens in host sera was established. RESULTS: The minimal concentration of SEA detected was 5 ng/ml by DS DIA. Serum circulating antigen detection in 14 cases of acute schistosomiasis japonica, 113 chronic cases and in 113 healthy controls revealed that the sensitivity was 100% in acute cases, 52.2% in chronic cases and the specificity was 92.9% for uninfected students. The sensitivity and specificity of DIA were similar to those of dot ELISA. A certain degree of diagnostic complementarity up to 76.1% in sera from these patients was seen when DS DIA and dot ELISA were used in parallel. CONCLUSION: DS DIA is a simple, economical and reliable method for detecting circulating antigens of Schistosoma japonicum, having a wide potential value especially for field use.

Key words [Colloidal dye immunoassay \(DIA\)](#) [schistosomiasis japonica](#) [circulating antigen detection](#)

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