中国寄生虫学与寄生虫病杂志 2010 28 (2): 139-142 ISSN: 1000-7423 CN: 31-1248/R

实验研究

RNA原位杂交法检测灌胃接种弓形虫速殖子小鼠体内虫体的早期动态分布

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收稿日期 修回日期 网络版发布日期 接受日期

摘要

目的 观察经灌胃接种弓形虫RH株速殖子后，虫体在小鼠体内的早期动态分布。 方法 弓形虫RH株速殖子经灌胃接种BALB/c小鼠20只（2×10^4/只），用RNA原位杂交法观察感染后1、2、4、6和8 d小鼠的肠系膜淋巴结（MLN）、肝、脾、肺和脑组织内速殖子的数量及分布趋势。同时设PBS空白对照组（5只）。 结果 感染后1 d，在MLN、肝和脾组织内均检测到速殖子，分别于感染后4 d和6 d在肺和脑组织内检测到速殖子。感染后6～8 d，各组织间虫荷差异均有统计学意义（*P*值均<0.05），组织内虫荷依次为MLN＞肝＞脾＞肺＞脑，各组织内虫体数量呈时间依赖性。 结论 弓形虫RH株速殖子经灌胃接种后，首先侵入MLN、肝和脾，其次为肺，最后为脑，且虫体在MLN内增殖较快。

关键词 弓形虫；RNA原位杂交；宿主组织

分类号

Early Kinetics of *Toxoplasma gondii* Infection in Mice Infected Intragastrically with Tachyzoites by Chromogenic in situ Hybridization Targeting SAG2 mRNA

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Abstract

Objective To observe the early kinetics of *Toxoplasma gondii* infection in mice inoculated with tachyzoites of RH strain. Methods Twenty BALB/c mice were administered intragastrically with tachyzoites of RH strain （2×10^4/mice）. Parasite burdens in mesenteric lymph node （MLN）, liver, spleen, lung and brain were determined by chromogenic in situ hybridization targeting SAG2 mRNA at 1, 2, 4, 6 and 8 days postinfection. Five mice were inoculated with PBS as blank control. Results The MLN, liver and spleen were the first organs where tachyzoites were found on the first day after infection, followed by the lungs on the 4th day and the brain on the 6th day. On days 6 to 8 after infection, there was a significant difference on parasite load among the tissues（*P*<0.05）, and the parasite load in MLN was highest, followed by that of liver, spleen, lungs and brain. The number of tachyzoites in various tissues was time-dependent. Conclusion *T. gondii* tachyzoites were first detected in MLN, liver and spleen, then in the lungs, and finally in the brain. The number of tachyzoites in the MLNs increased more rapidly.

Key words *Toxoplasma gondii*；RNA in situ hybridization；Host tissue

DOI:

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