Larval Migratory Behavior of Long-term-maintained Toxocara canis Embryonated in mice

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摘要

Abstract

Larval migratory behaviour of T. canis embryonated eggs that had been maintained in 2% formalin for 14 months at 4°C was evaluated using a larval recovery study in mice at between 1 and 469 days post infection (DPI). Three infected mice and 2 aged-matched uninfected control mice were sacrificed daily for acid-pepsin digestion of the liver and lungs (hepatopulmonary phase) as well as the musculature and brain (myotropic-neurotropic phase). Larval recovery from the hepatopulmonary phase reached a peak at 5 DPI, not at 2 DPI; thereafter, they began to migrate to the myotropic-neurotropic phase. Statistically, larval recoveries from the hepatopulmonary and myotropic-neurotropic phases, respectively, showed negative and positive correlations with time ($r=-0.688$, $P=0.005$; $r=0.138$, $P=0.327$). Altogether, although there seemed to be a delay in the migration of 14-month-cultured T. canis larvae to the hepatopulmonary phase, most of them still exhibited the myotropic-neurotropic phase, especially in the brain.