

Experimental Ocular Toxocariasis in Mice Infected with Long-term-maintained Embryonated Eggs of *Toxocara canis*

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摘要

Abstract

Ocular injury to ICR mice from embryonated eggs of *Toxocara canis*, which had been maintained in 2% formalin for 14 months at 4°C, was evaluated by microscopic and pathologic assessments at 1, 2, 3, 5, 7, 28, 56, 84, 112, 140, 168, 196, 294 and 469 days post infection (DPI). On each date, three infected mice and two age-matched uninfected control mice were sacrificed; left eyeballs from infected mice were examined for larvae under a dissecting microscope while all right eyeballs were embedded in paraffin for histologic study. No larvae were observed in the left eyeball of any of the 42 infected mice, while pathologic changes were observed in right eyeballs. Pathologically, the predominant changes were retinal detachment, iridocyclitis, and pars planitis, followed by optic nerve papillitis and superficial infarcts, as observed in one of three infected mice per group at 56, 140, and 168 DPI, respectively. No infiltrating cells surrounding the larvae in the retina were observed in the infected mice. This is the first report that larvae hatched from *T. canis* embryonated eggs maintained for a long time can cause murine ocular toxocariasis. These results further extend our knowledge of the pathogenicity of *T. canis* embryonated eggs.