Enhanced expression of transforming growth factor-B1 in Paneth cells in the small intestine of mice infected with Toxocara canis

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摘要

Abstract

The small intestine is the initial organ which Toxocara canis larvae invade. Information on intestinal pathological changes associated with transforming growth factor-1 (TGF-1) and secretory granules (SG) in Paneth cells (PCs) caused by T. canis is unclear. Mice orally inoculated with 250 T. canis infective eggs were evaluated by pathological and immunohistochemical assessments with a 294-day investigation. Pathologically, the inflammatory reactions with or without trapped larvae in the submucosa were observed only within the first 28 days post-infection (DPI), with inflammatory injury ranging from severe during 2 DPI to mild between 7 and 28 DPI. The crypts of Leiberkuhn were major larval penetration sites. Enhanced expression of SG in PCs appeared earlier than those of TGF-1 in infiltrating cells. The significance of both effectors might be related to the hosts defense against larval invasion in the intestinal phase of toxocaral infection.