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Author(s)	OKAMOTO, Munehiro
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SUSCEPTIBILITY OF PIKA TO GASTROINTESTINAL
PARASITIC NEMATODES OF RUMINANTS

Munehiro OKAMOTO

*Department of Parasitology,
Faculty of Veterinary Medicine,
Hokkaido University, Sapporo 060, Japan*

The susceptibility of the pika *Ochotona rufescens rufescens* to the gastrointestinal nematodes of ruminants was investigated. The pika was susceptible to *Haemonchus contortus*, *Ostertagia* sp., *Trichostrongylus axei* and *T. colubriformis*. However, *Strongyloides* sp., *Bunostomum trigonocephalum*, *Chabertia ovina* and *Mecistocirrus digitatus* failed to become established in the pika. Of the four species which were able to infect the pika, *H. contortus* showed a very low infection rate with no mature worms observed, and on day 45 postinfection, no worms were detected.

The pika was very susceptible to *Trichostrongylus* spp., and the average infection rate between days 11 and 25 postinfection was 76.6%. *T. colubriformis* showed fast growth during the early phase of infection in the pika, and the prepatent period was 14 to 15 days postinfection. However, the number of eggs per day per female was very low. During *T. colubriformis* infection, crypt hyperplasia and vacuolation of the small intestinal epithelial cells as well as body weight decrease were observed. Host response such as peripheral blood eosinophilia, increase of the basophils and eosinophils in the lamina propria of the small intestine and goblet cells, as well as increased mucus secretion of the small intestine, which were proposed to elicit spontaneous cure in the guinea-pig, were also observed in the pika. Despite the host response, the infection persisted for more than 70 days.

It was concluded that the pika is a suitable experimental animal for the study of *T. colubriformis*.