



HOKKAIDO UNIVERSITY

Title	GOLDEN HAMSTER AS A DEFINITIVE HOST OF TAENIA CRASSICEPS (CESTODA)
Author(s)	KITAOKA, Mayoko
Citation	Japanese Journal of Veterinary Research, 36(2), 159-159
Issue Date	1988-05-20
Doc URL	https://hdl.handle.net/2115/3103
Type	departmental bulletin paper
File Information	KJ00002377087.pdf



GOLDEN HAMSTER AS A DEFINITIVE HOST OF
TAENIA CRASSICEPS (CESTODA)

Mayoko KITAOKA

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

Golden hamsters (*Mesocricetus auratus*), Chinese hamsters (*Cricetulus griseus*) and cotton rats (*Sigmodon hispidus*) were orally infected with cysticerci of *Taenia crassiceps*. Of these animals, only the golden hamsters were successfully infected with adult tapeworms. The growth and development of cysticerci of *T. crassiceps* to mature tapeworms in the intestinal tract of cortisone-treated and non-treated golden hamsters were investigated.

In the untreated animals, the tapeworms recovered on day 4 postinfection (PI) showed strobilation and formation of the genital primordia. On day 7 PI, the primordia of the testes and of the vas deferens were observed. In some worms the vitelline gland, ovary, and Mehlis' gland primordia could also be seen. On day 10 PI, the vitelline gland, ovary, and Mehlis' gland were clearly defined. On day 15 PI, maturation and branching of the uterus, and the presence of ova in the uterus were observed. On day 21 PI, fertilization took place, as evidenced by the presence of sperm in the seminal receptacle. On day 28 PI, shelled eggs were observed. More worms were recovered and longer worm survival period were seen in the cortisone-treated hamsters.

Mongolian gerbils (*Meriones unguiculatus*) were orally inoculated with eggs obtained from the tapeworms which matured in the golden hamsters on day 40 PI. However, no cysticerci could be recovered from the gerbils. In addition, these eggs also failed to hatch when treated with artificial intestinal juice. It is suggested that the eggs of *T. crassiceps* from worms which matured in the golden hamsters were not viable.