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ANALYSIS OF INNATE RESISTANCE OF RODENTS TO INFECTION
BY VARIOUS STRAINS OF *TAENIA TAENIAEFORMIS*

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Infectivity to rodents of six strains of *Taenia taeniaeformis* (Abuta-, Hokudai- and Toubetsu-*Clethrionomys* strains, Teine-*Apodemus* strain, Hokudai- and Malaysia-*Rattus* strains), designated by the host and area collected, were compared. Eggs of the last 5 strains were orally given to ICR mice and Wistar rats. Infectivity of the strains varied in the mice, but the rats were susceptible to all 5 strains. However, when oncospheres were inoculated intraperitoneally, rats were susceptible to the last 4 strains but not to the first strain. Mongolian gerbils (*Meriones unguiculatus*) and *Clethrionomys rufocanus bedfordiae* were resistant to oral infection with eggs of Toubetsu-*Clethrionomys* strain and the two *Rattus* strains. However, the latter could be infected with the Abuta-*Clethrionomys* strain by intraduodenal inoculation of oncospheres. This suggests that *C. rufocanus bedfordiae* can also be infected by this strain by oral administration of eggs.

The mechanism for the innate resistance of the gerbils and *C. rufocanus bedfordiae* to Hokudai-*Rattus* strain infection was investigated. No significant difference was observed in *in vitro* hatching of eggs in the bile of the gerbils, *C. rufocanus bedfordiae* and rats. However, by using the duodenum "sausage technique" (BANERJEE & SINGH, 1969, Indian J. Anim. Sci., 39, 149-154), delayed *in vivo* hatching was observed in the gerbils and *C. rufocanus bedfordiae* as compared to rats. The establishment of infection in the gerbils and *C. rufocanus bedfordiae* after inoculation of oncospheres into the peritoneal cavity, subcutaneous tissue, femoral muscle, jugular vein, liver, mesenteric vein and duodenum was investigated. The gerbils were not infected when the inoculated oncospheres passed through the liver. Thus, in the gerbils, the liver was thought to be the most important site of innate resistance. On the other hand, *C. rufocanus bedfordiae* was infected by the intramesenteric vein but not by the intraduodenal inoculation of oncospheres. Therefore, in *C. rufocanus bedfordiae*, the intestinal mucosa and liver are thought to be important sites of innate resistance.