

Rat Helicobacteriosis information

Species:

Helicobacter muridarum

H. trogontum

H. bilis

H. heilmannii

- Unlike in mice, no experimental reproduction of disease by natural infection has been performed with *Helicobacter spp.* in rats.
- Lesions reported in athymic nude rats infected with *H. bilis* are similar to those reported in immunodeficient mice inoculated with *H. bilis* or *H. hepaticus* and include proliferative and ulcerative typhlitis, colitis, and proctitis.
- No lesions have been reported in immunocompetent laboratory rats from any naturally occurring *Helicobacter* species.
- No studies have been published on the transmission of naturally occurring *Helicobacter* infections in rats. In mice, horizontal transmission by soiled bedding, probably fecal-oral transmission, has been demonstrated. Fecal-oral transmission is also probable in rats.
- No indication of transmission by feed, bedding, water, or aerosols has been reported. The possibility of transmission by humans is difficult to exclude.

Information on rat Parvoviruses

Parvoviruses that infect rats include (Kilham's) rat virus (RV), (Toolan's) H-1 virus, and rat parvovirus (RPV).

- RV clinical signs: reduced litter size, runt litter, fetal and neonatal death.
- RPV clinical signs: subclinical.
- RV transmission: aerosol through direct contact or fomites, urine, milk
- After experimental inoculation of RV into neonatal rats, the virus persists in tissues for up to 14 weeks, and the duration of infectivity to cage contacts up to 10 weeks.

Reference: Biology and Diseases of Rats. Kohn DF, Clifford CB. *Laboratory Animal Medicine* 2nd edition. 2002. Academic Press. San Diego. Pages 139, 140, 146.