

# The Helicobacter Infection in Laboratory Rodent

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## ABSTRACT

Presently, 5 *Helicobacter* species including *H. hepaticus*, *H. muridarum*, *H. bilis*, *H. rodentium* and *Flexispira rappini* have been isolated from laboratory mice. Among these species, only *H. hepaticus* has been clearly recognized as a pathogen for mice. Indeed, it infection displays the pathogenic potential to elicit hepatitis and hepatic cancer in several strains of mice including A/JCr, C3H/HeNC, SJL/NCr, BALB/cAnNCr and SCID/NCr. *Flexispira rappini* has not been found to be associated with lesions; *H. muridarum* has been observed in gastric glands of mice with chronic gastritis, and *H. bilis* has been reported in the liver of mice with chronic hepatitis. When associating with *H. rodentium*, *H. bilis* is able to induce diarrhea in SCID mice. In laboratory rats, 4 *Helicobacter* species have been identified, *H. trogontum* and *H. muridarum* have been isolated from the rat intestines, but there is no information concerning their respective pathogenicity. *H. cinaedi* and *H. cholecystus* have been identified from the intestines and gallbladders of laboratory hamsters, respectively. According to the epidemiological studies, *H. hepaticus* and *H. bilis* infections seem to be widespread in laboratory mice. *Helicobacter* infections can be diagnosed by histopathological analysis, bacterial culture, enzyme linked immunosorbent assay (ELISA), and polymerase chain reaction (PCR) techniques. Among those (PCR) is a rapid, specific and sensitive technique. Several drugs have been demonstrated to cure the infections of *H. hepaticus* in mice.

Keywords : Helicobacters, Laboratory Rodent, Pathology, Diagnosis, Epidemiology, Treatment

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