

Helicobacter Gastritis: Does It Cause Vomiting in Dogs & Cats?

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Helicobacter pylori is a microaerophilic, spiral, gram-negative organism that lives in gastric mucus. Infection with *H. pylori* is the most common cause of chronic gastritis and peptic ulceration in humans and has been associated with increased risk for gastric lymphoma and adenocarcinoma. Most infections are not associated with clinical signs. Without treatment, infection is lifelong. Many species of spiral bacteria have also been identified in dogs and cats, but questions remain regarding the clinical significance of *Helicobacter* infection in these animals. Experimental infection in dogs and cats has been established, but clinical signs were absent or mild in these studies. Because of the potential relationship between *Helicobacter* infection and chronic gastritis and vomiting in dogs and cats, however, the author treats clinical cases and recommends, at a minimum, determining if spiral bacteria are present during gastroscopic examination or exploratory celiotomy of these patients. The 3 most commonly used diagnostic methods are gastric brush cytologic evaluation, rapid urease test, and histopathologic evaluation of gastric biopsy samples. Of these, brush cytologic evaluation is the least expensive, has the quickest turnaround time, is the most sensitive in dogs and cats, and is the most practical. The author describes each method in this presentation. Also described are 2 treatments used by the author in a clinical study of chronically vomiting dogs with documented *Helicobacter* infection: 1) amoxicillin, metronidazole, and bismuth subsalicylate, or 2) those drugs in addition to famotidine. Six months after dogs complete either therapy, the author has found approximately 40% to be negative for *Helicobacter* in gastric biopsy specimens. Frequency of vomiting was reduced in both treatment groups by approximately 85%. The rate of treatment failure has prompted the author to investigate the use of clarithromycin-based protocols that, thus far, have had encouraging results.

COMMENTARY: Gastric *Helicobacter* has fascinated veterinary surgeons since the discovery of its clinical significance in humans. Such is its frequency in humans that many pet owners have experienced it and are concerned about its effect in their pets. Dogs and cats are usually infected with species of *Helicobacter* other than *pylori* and, in spite of many studies, the clinical significance has yet to be defined. However, they are often present on gastric biopsies and the ACVIM consensus is to treat them. This article, written by a clinician experienced in diagnosing and treating *Helicobacter* in small animals, discusses the methods available for identifying infection in a practical way. The pros and cons of each method are considered. Different treatment options for dogs are also presented with the results of the author's own clinical studies in dogs. This clinically based article gives up-to-date advice on diagnosis and treatment of *Helicobacter* while continuing to question our real understanding of its significance. —Penny Watson, MA, VetMB, CertVR, DSAM, Diplomate ECVIM, MRCVS