

A Short Note on Gut Pathogen of *Helicobacter pylori*

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DESCRIPTION

Helicobacter pylori are one of the human pathogens with highest commonness around the world; yet, its principal mode of transmission remnants largely unidentified. The role of *H. pylori* in cancer and gastric disease has not been recognized until the end of the 20th century. *Helicobacter pylori*, formerly known as *Campylobacter pyloridis* then *Campylobacter pylori* are one of the human pathogens with highest prevalence around the world; yet, its exact mode of transmission is still indeterminate. This organism was inaccessible from the human stomach but has not been reliably isolated from any additional niche, and thus the mechanism by which it colonizes the human stomach remains largely unknown.

H. pylori is a spiral, microaerophilic bacterium, gram-negative, which was recognized in 1982, a discovery that transformed gastroenterology. Beforehand, the human stomach was believed to be a sterile area. Today, *H. pylori* is documented as the most common cause of gastritis, which in turn indications to the expansion of additional gastrointestinal complications such as duodenal ulcers and peptic. Additionally, the organism is confidential as a class 1 carcinogen because of its causal association to gastric adenocarcinoma, one of the world's deadliest cancers. The previously underrated clinical relevance of this rediscovered spiral bacterium rapidly enticed microbiologists, infectious disease specialists, epidemiologists, and veterinarians to explore its physiology, genetics, epidemiology, and transmission.

H. pylori are one of the most mutual bacterial infectious agents; it inhabits the stomachs of more than half of the world's population. The commonness of infection seems to mostly depend on the rate of acquisition, but also on the rate of loss of infection and the length of the perseverance period between acquisition and loss. Based on these factors, *H. pylori* occurrence fluctuates from one country to another and may differ amongst different ethnic, social, or age groups. Internationally, the prevalence of *H. pylori* infection in developing countries is decidedly higher than that in advanced countries. The geographic differences in *H. pylori* prevalence have been attributed to the differential rate of attainment of the bacterium

during the first years of life. Acquisition of *H. pylori* is decreasing in developed countries at a faster rate than in developing countries, likely because of the faster improvement in hygiene practices in the developed world. Furthermore, infection during childhood in developed countries is not recurrent. The incidence of *H. pylori* infection in the emerging world is higher and occurs at younger age. The mode of transmission of *H. pylori* is one of the most contentious areas in the study of this pathogen. Ingestion of the bacteria, which is the most likely portal of entry, may occur by one or a combination of three means: gastro-oral, oral-oral, or fecal-oral, but determining a leading route is not an easy task. While culturing *H. pylori* from the gastric secretion is conceivable, its isolation from stool or the oral cavity is problematic because either location is known for its diverse, abundant resident microbiota. Although *H. pylori* was recommended as a member of the oral microbiota, self-governing from the stomach's infection and although the prevalence of *H. pylori* infection among dentists or dental workers is not higher than in others, the mouth is still being considered as a candidate reservoir for *H. pylori*, and oral-oral transmission is regarded as a plausible route of *H. pylori* transmission. Meanwhile the human stomach is the primary niche of *H. pylori*, it is reasonable to propose a direct gastro-oral route of transmission arbitrated by refluxed gastric juice. *H. pylori* is sensitive to the bile's bactericidal effect, so theoretically, and under normal circumstances, passage of feasible *H. pylori* finished the intestine and its discovery in stool are improbable yet, some studies suggest that passage of viable *H. pylori* through the intestine could be confirmed. Environmental or animal reservoirs were examined as sources of *H. pylori* infection. Food, animals, and water sources have been recommended as reservoirs outside the human gastrointestinal tract, and *H. pylori* or its DNA was detected. As with most infectious and non-infectious diseases, no one factor can be singled out as the major determinant of *H. pylori* occurrence and prevalence.

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CONCLUSION

H. pylori in epidemiology among developing and developed countries, notably amongst children, *H. pylori* prevalence is conventional correlated with a country's overall wealth inasmuch as human poverty is not necessarily dependent on a country's gross national product. Instead, the effects of deficiency on *H. pylori* infection are more noticeable amongst dissimilar communities, frequently situated within the same

country or region, but unglued founded on sanitation, general hygiene, and standards of living. Though *H. pylori* infection may eventually disappear from high-income countries even without intervention, as optional by mathematical modeling, its prevalence is paradoxically foreseeable to rise in low-income countries and communities. *H. pylori* associated diseases and perhaps to eradicate this chronic colonizer of half of the human race.