Helicobater pylori is the strongest known risk factor for distal gastric adenocarcinoma. The gram-negative bacterial species is found in the gastric epithelium of approximately half of the world's population, with 1-3% developing gastric adenocarcinoma. The high rate of colonization, along with genetic studies indicating H. pylori colonizing humans for at least 58.000 years, lead to it being suggested as an endogenous member of the gastric microbiota.

The pathologic outcome of a H. pylori infection has multiple factors. Infection is associated with a 2.2-fold increased risk of developing distal gastric adenocarcinoma compared to uninfected individuals. This risk is increased to 5.8-fold if the infecting strain carries the cag pathogenicity island (cag-PAI) encoding a type IV bacterial secretion system (T4SS) and the virulence factor CagA.

words: 123