Universidad y Salud
ISSN: 0124-7107I
ISSNe: 2389-7066

SECCIÓN: CONTROL Y GESTIÓN DE LOS RIESGOS PARA LA SALUD Y LAS EMERGENCIAS
Artículo de revisión
DOI: https://doi.org/10.22267/rus.232501.292

Helicobacter pylori: Microorganismo patógeno o mutualista en poblaciones colombianas

Helicobacter pylori: Pathogenic or mutualistic microorganism in Colombian populations

Helicobacter pylori: microrganismo patógeno ou mutualista em populações Colombianas

Kevin Andrés Guzmán[1*] orcid.org/0000-0002-6483-4894

Alvaro Pazos[1,2] orcid.org/0000-0001-5603-7898

1. Grupo de Investigación Salud Pública, Centro de Estudios en Salud, Universidad de Nariño. Pasto, Colombia.
2. Facultad de Ciencias Exactas y Naturales, Departamento de Biología, Universidad de Nariño. Pasto, Colombia.

Recibido: Octubre 22 – 2021 Revisado: Abril 18- 2022 Aceptado: Enero 27 - 2023 Publicado: Enero 31 - 2023

Citación: *Guzmán KA, Pazos A. Helicobacter pylori: Microorganismo patógeno o mutualista en poblaciones colombianas. Univ. Salud. 2023;25(1):A1-A6. DOI: https://doi.org/10.22267/rus.232501.292*

Resumen

Introducción: El riesgo de desarrollar cáncer gástrico varía entre continentes, países y regiones. A pesar de que existe una alta prevalencia de *Helicobacter pylori* su rol como patógeno o mutualista define el riesgo de cáncer gástrico en las regiones de Colombia. **Objetivo:** Discutir el rol de *Helicobacter pylori* en el riesgo de cáncer gástrico en Colombia. **Materiales y métodos:** Revisión de literatura mediante la búsqueda, en las bases de datos *LILACS*, *SciELO*, *PubMed*. **Resultados:** La coevolución del humano y de *Helicobacter pylori*; la virulencia de genes *cagA*, *vacA*; el tipo de respuesta inmune inflamatoria a *Helicobacter pylori* (Th1) o antinflamatoria (Th2) y la susceptibilidad humana a cáncer gástrico (*IL1β*, *IL10*), junto a la dieta y factores ambientales explican el papel de *Helicobacter pylori* como patógeno o mutualista asociado al riesgo de cáncer gástrico en Colombia. **Conclusiones:** *Helicobacter pylori* tiene un rol mutualista principalmente en poblaciones de bajo riesgo de cáncer gástrico (costas), no obstante, en poblaciones con alto riesgo de cáncer gástrico (andes), su papel como patógeno amerita la erradicación; única estrategia para mitigar la alta incidencia de este cáncer en Colombia.

Palabras clave*:* *Helicobacter pylori*; incidencia; cáncer gástrico; factores de riesgo; coevolución. (Fuente: DeCS, Bireme).

Abstract

Introduction: The risk to develop gastric cancer varies between continents, countries and regions. Although there is a high prevalence of *Helicobater pylori*, its role as either pathogen or mutualistic bacteria defines the risk of gastric cancer in Colombian regions. **Objective:** To discuss the role of *Helicobacter pylori* in the risk of gastric cancer in Colombia. **Materials and methods:** A literature review based on searching *LILACS*, *SciELO*, and *PubMed* databases. **Results:** *Helicobacter pylori* role as either a pathogen or mutualistic microorganism associated with gastric cancer risk in Colombia can be explained by analyzing elements such as: human and *Helicobacter pylori* coevolution; *cagA* and *vacA* gene virulence; inflammatory (Th1) or anti-inflammatory (Th2) responses induced by *Helicobacter pylori*; human susceptibility to gastric cancer (*IL1β*, *IL10*); diet; and environmental factors. **Conclusions:** Even though *Helicobacter pylori* has a mutualistic role in populations at low gastric cancer risk (coastal regions), its role as a pathogen in populations at higher risk (Andean regions) justifies its eradication as a key strategy to mitigate the incidence of this cancer in Colombia.

Keywords: *Helicobacter pylori;* incidence; stomach Neoplasms; risk factors; biological coevolution. (Source: DeCS, Bireme).

Resumo

Introdução: O risco de desenvolver câncer gástrico varia entre continentes, países e regiões. Embora haja uma alta prevalência de *Helicobacter pylori*, seu papel como patógeno ou mutualista define o risco de câncer gástrico nas regiões da Colômbia. **Objetivo:** Discutir o papel do *Helicobacter pylori* no risco de câncer gástrico na Colômbia. **Materiais e métodos:** Revisão da literatura por meio da busca, nas bases de dados *LILACS*, *SciELO* e *PubMed*. **Resultados:** A coevolução de humanos e *Helicobacter pylori*; a virulência dos genes *cagA*, *vacA*; o tipo de resposta imune inflamatória ao *Helicobacter pylori* (Th1) ou anti-inflamatório (Th2) e a suscetibilidade humana ao câncer gástrico (*IL1β*, *IL10*), juntamente com a dieta e fatores ambientais explicam o papel do *Helicobacter pylori* como patógeno ou mutualista associado ao risco de câncer gástrico na Colômbia. **Conclusões:** *Helicobacter pylori* tem um papel mutualista principalmente em populações de baixo risco de câncer gástrico (litoral), porém, em populações com alto risco de câncer gástrico (andes), seu papel como patógeno justifica a erradicação; única estratégia para mitigar a alta incidência deste câncer na Colômbia.

Palavras chave: *Helicobacter pylori;* incidência; neoplasias gástricas; fatores de risco; coevolução biológica. (Fonte: DeCS, Bireme).

***Autor de correspondencia**
Kevin Andrés Guzmán
e-mail: keving346@gmail.com

genes de citocinas *IL-1β-5* e *IL-10-1082,* considerados marcadores de susceptibilidad humana a cáncer gástrico[31,40,41,46,50,51,56].

El posible efecto patógeno de la bacteria es el producto del cambio de estilo de vida y la dieta contemporánea por las sociedades actuales en Colombia producto de un sincretismo cultural después de la colonización europea. Para entender con mayor exactitud el rol y los mecanismos que forjan la patogénesis de *H. pylori* en el ser humano, es necesario ampliar el conocimiento en cuanto a las relaciones ecológicas con el microbioma y sus relaciones evolutivas en futuros estudios[65,66].

Conclusiones

La definición de *Helicobacter pylori* como patógeno o mutualista en Colombia se puede describir a partir del proceso de coevolución del humano y de la bacteria; los alelos de virulencia de genes *vacA* y motivos EPIYA de *cagA*; el tipo de respuesta inmune inflamatoria a *Helicobacter pylori* (Th1) o antinflamatoria (Th2) y la susceptibilidad humana a cáncer gástrico (*IL1β*, *IL10*), junto a la dieta y factores ambientales.

Helicobacter pylori tiene un rol mutualista principalmente en poblaciones de bajo riesgo de cáncer gástrico (costas colombianas), no obstante, en poblaciones con alto riesgo de cáncer gástrico (montañas andinas) su papel como patógeno amerita su erradicación, siendo la única estrategia válida para mitigar la alta incidencia de cáncer gástrico en Colombia.

Conflicto de intereses: Ninguno declarado por los autores.

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