

Helicobacter pylori infection in advanced gastric adenocarcinoma patients

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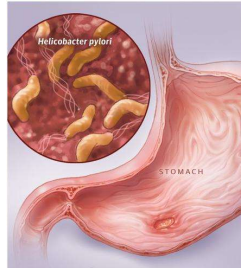
Introduction

In 2020, gastric cancer was the fourth leading cause of cancer death worldwide.

Gastric adenocarcinoma (GAd) accounts for 95% of cases and has a low survival rate.

Clinical staging (CS) represents an important prognostic factor and infection by *Helicobacter pylori* (H.pylori) is associated with its carcinogenesis.

We aim to investigate the association of H.pylori infection with advanced clinical staging of GAd.



Results

Among H.pylori negative cases:

- 82.5% were CS III/IV
- 72.6% were CS I/II |

In a univariate analysis, a greater chance of being CS III/IV was observed among cases:

- treated via supplementary healthcare (OR 2.02; 95% CI 1.08-3.78).

In multiple analysis (adjusted for sex, age, and histological grade), a greater chance of being CS III/IV was observed among patients:

- H.pylori negative (OR 2.81; 95%CI 1.18-6.67)
- elementary school (OR 2.81; 95%CI 1.00-7.88)
- supplementary healthcare (OR 3.45; 95%CI 1.20-9.93).

Methods

Prospective cohort study conducted at A.C. Camargo Cancer Center, São Paulo/Brazil from February, 2016 to July, 2019 with 214 histopathology-confirmed GAd cases.

Approved by ethics and research committee (n°2169/16F)

Dependent variable (CS) was categorized into CS I/II and CS III/IV. Variables comparison by Pearson's chi-square test, with a statistical significance of 5%.

To calculate Odds ratios (OR) and respective 95% confidence intervals (CI95%) by multiple logistic regression model.

Univariate logistic regression was performed, variables with $p < 0.20$ were selected and inserted into the multiple model using the Stepwise Forward technique, those with $p < 0.05$ and that contributed to a good fit remained in the final multiple model.

Table 1: Association between advanced clinical stage and *Helicobacter pylori* infection in patients with gastric adenocarcinoma.

Category	OR	95%CI
Sex		
Male	1	
Female	1.07	0.52-2.12
Age (years)		
<60	1	
≥60	0.841	0.42-1.69
Educational level		
Secondary	1	
Elementary	2.81	1.00-7.88
Access to health servisse		
Public	1	
Private	3.45	1.20-9.93
Helicobacter pylori infection		
Positive	1	
Negative	2.81	1.18-6.67
Histological grade		
GH1 e GH2	1	
GH3 and indiferenciado	0.60	0.29-1.23

*analysis adjusted by sex, age and histological grade; OR: odds ratio; CI: confidence interval

Results

From a total of 214 patients with Gad, The majority of (78%) was H.pylori negative.

Conclusion

Negative H. Pylori infection in patients with GAd was linked to CS III and IV, as well as schooling up to elementary school and access to health services via supplementary healthcare. The reasons for these findings need further investigation.

Contato

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