



Helicobacter pylori gastric infection in patients with laryngeal cancer

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One cross-sectional study conducted by Pajić Matić et al. in European Archives of Oto-Rhino-Laryngology disclosed that there was a statistically significant association between laryngeal cancer and *Helicobacter pylori* infection [1]. Pajić Matić's study has attracted high attention and interest from scholars in the field of laryngeal cancer and *Helicobacter pylori* infection.

Some of my opinions are shared with the readers. First, the carcinogenic effects of smoking cigarettes and alcohol consumption on the development of laryngeal cancer have been well examined [2, 3]. In addition, the evidence disclosed that a positive association was noted between current smoking and the prevalence of *Helicobacter pylori* infection [4]. To the contrary, moderate alcohol consumption might facilitate elimination of *Helicobacter pylori* infection [5]. Based on these studies, smoking and alcohol could confound the association between laryngeal cancer and *Helicobacter pylori* infection observed in Pajić Matić's study. However, the information on smoking cigarettes and alcohol consumption was not shown in Pajić Matić's study. If smoking cigarettes and alcohol consumption can be included for analysis, much evidence can be presented to the readers to clarify points in dispute. Second, the early symptoms of laryngeal cancer and *Helicobacter pylori* infection are subjective and variable. It is difficult to differentiate that laryngeal cancer or *Helicobacter pylori* infection occurs first. Therefore, the causal–effect relationship cannot be determined by a cross-sectional study. Theoretically, the coexistence of laryngeal cancer and *Helicobacter pylori* infection observed in Pajić Matić's study is reasonable. I think that the observed association is true, but not causal. The current evidence is insufficient to regard *Helicobacter pylori* infection as a risk

factor for laryngeal cancer. Finally, the association between laryngeal cancer and *Helicobacter pylori* infection is novel, but related studies are not enough. More real-world data are needed to examine this association.

Compliance with ethical standards

Conflict of interest The author discloses no conflicts of interest.

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