

Letter to the Editor

In Reference to *Gastroesophageal Reflux and Chronic Rhinosinusitis: A Mendelian Randomization Study*

Key Words: chronic, extra-esophageal reflux, gastroesophageal reflux disease, laryngopharyngeal reflux, otolaryngology, rhinosinusitis, sinusitis.

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Dear Editor,

We read the article of Guo and Xie entitled, “*Gastroesophageal Reflux and Chronic Rhinosinusitis: A Mendelian Randomization Study*.”¹ Authors conducted a two-sample Mendelian randomization analysis to explore the association between gastroesophageal reflux disease (GERD) and chronic rhinosinusitis (CRS). They mainly used genome-wide association studies, which include data for several thousand asymptomatic individuals and patients with CRS, to explore the association with GERD. GERD was identified through the consumption of omeprazole, the international classification of disease, and self-reported GERD symptoms.¹ We congratulate the authors for this article, which investigated a complicated topic. However, we would like to draw attention to some methodological points.

The criteria used for the GERD diagnosis do not corroborate those of the Lyon consensus article, which consist of peptic esophageal stricture, grade C/D esophagitis, or acid exposure time >6% at the pH monitoring.² Many healthy individuals reported GERD symptom without having GERD,³ which makes biased the only consideration of GERD symptoms for the GERD diagnosis confirmation. The potential association between reflux and respiratory disorders (e.g., CRS and asthma) needs to carefully consider the back-flow of gastroduodenal content into the respiratory mucosa, which includes pepsin, bile salts, or other enzymes.⁴⁻⁶ The presence of reflux events (hypopharyngeal-esophageal multichannel intraluminal impedance-pH monitoring [HEMII-pH]), enzymes, symptoms, and findings may suggest the presence of laryngopharyngeal reflux (LPR).⁷ LPR is unrelated to GERD, and GERD does not involve LPR.⁷ Indeed, two-thirds of GERD patients do not report LPR,³ whereas patients with >1 event at the HEMII-pH (LPR diagnosis) do not have GERD according to the Lyon consensus.^{2,7} Most reflux events in the distal esophagus do not reach the

proximal esophagus, and one- to two-thirds of proximal esophageal reflux events reach the hypopharynx.⁸

Despite of significant limitations, Guo and Xie have investigated an important topic. The results of this study highlight the need to improve the awareness about the differences between GERD and LPR and to consider “true” LPR patients at the 24-h HEMII-pH in future large database investigations. To date, there are few studies that considered the use of HEMII-pH for the LPR diagnosis, whereas most of the practitioners are unaware of the usefulness of HEMII-pH for the LPR diagnosis.⁹ The recent publication of the Dubai criteria for the LPR diagnosis⁷ may improve patient care through the objective confirmation of the LPR diagnosis, whereas the investigation of gastroduodenal enzymes into CRS and asthma patient secretions may be an indicator of potential association.

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