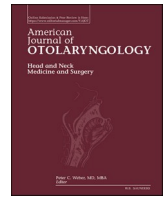


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Dear Editor,

We read with great interest the paper of Wu et al. entitled “Is *Helicobacter pylori* colonization associated with chronic tonsillitis? – A meta-analysis and systematic review” [1]. The authors investigated the role of *Helicobacter pylori* in chronic tonsillitis through a systematic review and meta-analysis. They concluded that the positive rate of *Helicobacter pylori* in chronic tonsillitis group was significantly higher than that in simple noninfectious group only in the pediatric population. They therefore suggested that chronic tonsillitis is likely to be relevant to *Helicobacter pylori*. We congratulate authors for this interesting investigation of a poorly known topic. However, we would like to draw attention to several points worthy of debate.

The study of the association between *Helicobacter pylori* and non-infectious chronic tonsillitis has to carefully consider the presence of a major confounding factor: the laryngopharyngeal reflux (LPR). Indeed, it has already been suggested that the role of LPR in the development of chronic tonsillitis was often underestimated by otolaryngologists [2,3]. Prior research showed that many practitioners commonly diagnose viral or bacterial (without swab) tonsillitis in patients who only have LPR-related sore throat [3]. Thus, the presence of *Helicobacter pylori* may be related to the occurrence of backflow of gastroduodenal content into the upper aerodigestive tract mucosa [4,5]. For this reason, the study of the association between chronic tonsillitis and *Helicobacter pylori* should take into account the prevalence of LPR according to hypopharyngeal-esophageal multichannel intraluminal impedance-pH monitoring. The consideration of pH-impedance testing may demonstrate the relationship between gaseous or liquid reflux events in the throat and the potential colonization of *Helicobacter pylori* in some upper aerodigestive tract anatomical regions. The lack of consideration of LPR and hypopharyngeal-esophageal multichannel intraluminal impedance-pH monitoring in the studies included in the meta-analysis of Wu et al. as well as the lack of bias analysis dedicated to such confounding factors are probably the main limitations of the study, thus limiting the impact of their conclusion.

The potential confusion between *Helicobacter pylori* detection in

upper aerodigestive tract tissues and the presence of LPR is not only highlighted in chronic tonsillitis studies. Indeed, in the current literature, many authors suggested a clinical association between *Helicobacter pylori* and the development of many otolaryngological conditions, including chronic rhinosinusitis [6], laryngeal cancer [7] or otitis media [8], while clinical and basic science studies supported an association between those conditions and LPR [9–12].

To sum, it seems conceivable that these associations are more related to the existence of LPR than a role of *Helicobacter pylori*, which may refluxate into the upper aerodigestive tract through liquid or gaseous reflux events.

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