Dear Editor:

The diagnosis of laryngopharyngeal reflux (LPR) is still challenging. Nowadays, multichannel intraluminal impedance-pH monitoring (MII-pH) is the most reliable diagnostic method providing useful information about the type of reflux and the occurrence of LPR and gastroesophageal reflux disease. However, because MII-pH is expensive and inconvenient, recent noninvasive procedures have been developed such as pepsin detection (Peptest; RD-Biomed, Hull, United Kingdom). In their published study, Wang et al. attempted to determine sensitivity, specificity, and positive and negative likelihood ratio of Peptest in LPR patients.

First, the authors used the Reflux Symptom Index (RSI ≥ 13) as a single diagnostic tool with a modified cutoff as those of Belafsky et al. (RSI > 13). LPR symptoms are not specific, and RSI can be increased in patients with other laryngopharyngeal disorders (e.g., allergy or muscle tension dysphonia) that are differential diagnoses of LPR. These two usual conditions have not been considered in the Wang et al. article, leading to a probable inclusion bias. Their low therapeutic success rate (59.4%) could also be related to inclusion of patients with these confounding factors. Moreover, the authors did not assess LPR findings with a clinical tool such as the Reflux Finding Score (RFS). In the context where MII-pH was not used for the diagnosis, it is important to exclude all confounding factors and to consider symptoms (RSI > 13) and signs (RFS > 7) for the diagnosis.

Second, the use of the Peptest for the diagnosis is a new and promising procedure, but sensitivity and specificity remain uncertain. However, the Peptest can be positive in 9% to 53% of healthy controls, underlying a poor negative predictive value of the procedure. For this reason, the use of a control group in the study of Wang et al. would make sense to better investigate the Peptest’s epidemiological characteristics.

Third, as demonstrated in MII-pH studies, the positivity of the Peptest in healthy subjects can be related to some extrinsic factors impacting the esophageal sphincter tonicity such as poor diet during the testing period (e.g., spicy, acid, fat). This applies to LPR patients who could have more reflux episodes and pepsin deposit in laryngopharyngeal mucosa when they eat a poor diet. Wang et al. found a positive correlation between the baseline severity of the Peptest and the therapeutic response to proton pump inhibitors, but they did not report information about the patients’ diet at baseline and throughout treatment. This makes the interpretation of the results difficult, because patients with a poor diet at baseline could have more reflux episodes (and positive Peptest) than those with a better diet, and in the same way, patients who followed an antireflux diet throughout treatment are known to have better improvement of LPR symptoms.

According to the lack of evidence about the Peptest’s validity, future researchers who study epidemiological characteristics of the Peptest should include patients with a demonstrated LPR diagnosis, and should consider the diet during the testing period for LPR patients and healthy controls.

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