The Laryngoscope

LETTER TO THE EDITOR

In Reference to *Laryngopharyngeal Reflux and Upper Airway Obstruction Patterns in Nonobese Sleep Apnea Patients*

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Dear Editor,

We carefully read the paper entitled "Laryngopharyngeal Reflux (LPR) and Upper Airway Obstruction Patterns in Nonobese Sleep Apnea Patients" [1]. In this paper, Gul et al. investigated the relationship between LPR and obstruction level during drug-induced sleep endoscopy (DISE) in 105 adults with symptoms and signs of LPR. They reported that 48.7% of patients had suspected LPR with a potential association between base of tongue hypertrophy and sleep apnea. We thank the authors for this interesting study. In this letter, we wish to draw attention to many points.

Due to the non-specificity of symptoms and signs, recent consensus guidelines recommend establishing LPR diagnosis through the detection of more than one pharyngeal reflux events at the 24-h hypopharyngeal-esophageal multichannel intraluminal impedance pH testing (HEMII-pH) [2, 3]. Gul et al. based the LPR diagnostic approach on reflux symptom index (RSI) and reflux finding score (RFS) without identification of pharyngeal reflux disease at the HEMII-pH [1]. This approach has been demonstrated as inaccurate, with a high rate of false-positive results [4, 5]. Indeed, several prevalent otolaryngological conditions (e.g., allergic rhinitis, chronic rhinosinusitis, and tobacco-induced laryngopharyngitis) that can mimic LPR symptoms and signs were not systematically excluded, which could potentially lead to elevated RSI and RFS values, resulting in LPR overdiagnosis [6–8]. Thus, the association found between RFS severity and the level of airway obstruction cannot formally demonstrate a causal relationship between LPR and upper airway obstruction, but only highlights an association between edema in specific anatomical regions of the upper aerodigestive tract.

Authors stated that the lack of association between pharyngeal reflux events and symptoms during the 24-h testing represents a limitation in using objective testing [1]. The positive association between symptoms and reflux events is typically found in GERD, which is characterized by an acidic liquid refluxate in the distal esophagus. In contrast, LPR is characterized by weakly acidic, gaseous refluxate, resulting in a prolonged inflammatory process and delayed symptom onset [9, 10]. Therefore, the lack of association between symptoms and pharyngeal reflux events during 24-h HEMII-pH monitoring is a pathophysiological characteristic of LPR rather than a limitation.

Due to the non-specificity of LPR signs, the investigation of the role of LPR in upper airway obstruction can involve the use of 24-h HEMII-pH in patients with sleep disorders, the careful exclusion of confounding conditions (e.g., allergy, chronic

rhinosinusitis, tobacco- and alcohol-induced laryngopharyngitis) in selected patients, and the as objective as possible evaluation of laryngopharyngeal signs avoiding subjective Likert-scale.

Conflicts of Interest

The authors declare no conflicts of interest.

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