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Letter to the Editor

Response to comment: An objective assessment of halitosis in children with adenoid vegetation during the pre- and postoperative periods

We greatly appreciate the reader's valuable comment. We completely agree with the reviewer that the diagnosis of allergic rhinitis (AR) is based on history, physical examination, and allergy tests. However, in many cases, especially in children, we tend to prefer noninvasive procedures. Therefore, in our study, patients with suspicious AR history or suspicious AR findings on endoscopic examination were excluded. As we mentioned in the Discussion section, one of the limitations of our study was the small sample size. Although adenoid hypertrophy is a common childhood disease, few potential participants met all the criteria. Therefore, the adenoid hypertrophy group included only 40 patients. A detailed history was obtained, and nasal endoscopy was performed with a rigid pediatric nasal endoscope in all subjects to visualize all anatomic details, differentiate nasal pathologies, and assess estimated adenoid size. Recently, a significant relationship was reported between endoscopic findings and the perception of nasal symptoms in children with AR [1].

AR is a common chronic disorder characterized by typical symptoms, including itchy nose, sneezing, rhinorrhea, and nasal obstruction. The nasal mucosa is particularly exposed to allergens and represents the site of local inflammation in AR. Nasal inflammation induces the occurrence of anatomic changes that may be easily observed during endoscopy. The typical endoscopic picture in children with AR is characterized by hypertrophic turbinates with relevant edema of the inferior turbinate head. This edema is usually localized and sectorial and may cause contact between the inferior turbinate and the lateral wall. In addition, pale turbinates are considered by most physicians to be a sign of AR [2]. It also does not seem possible that allergic inflammation is capable of causing adenoid hypertrophy without causing any nasal anatomic changes that may be observed by endoscopic examination.

Because of the invasive nature of allergy tests, Ameli et al. investigated whether the diagnosis of allergic rhinitis in children could be made by anamnesis and endoscopic examination. They reported that endoscopic features associated with clinical symptoms could precede the classical AR diagnosis based on allergy tests in children. Furthermore, they reported that about 20% of children with suspected AR were negative on the skin prick test despite both clinical and endoscopic suspicions. In other words, localized edema might

depend on a local allergic reaction that in some children is accompanied by a negative skin prick test [2].

As far we know, the study in which we evaluated halitosis in AR patients in our clinic is the first of its kind in the literature. In this study, it was stated that post-nasal drip, which creates an environment for bacteria to multiply and changes the oral microbial flora because of oral respiration due to nasal obstruction, results in an increase in volatile sulfur compounds that may be the cause of halitosis. Both signs of allergic inflammation (nasal obstruction and postnasal drip) may be easily observed during endoscopy [3].

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Conflict of interest statement

None.

References

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