



# Letter to the Editor: Effects of airway evaluation parameters on the laryngeal view grade in mandibular prognathism and retrognathism patients

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I read with great interest the article titled “Effects of airway evaluation parameters on the laryngeal view grade in mandibular prognathism and retrognathism patients” [1]. Thank you for reporting these methods of airway evaluation and also for the information regarding the influence of prognathism and retrognathism on the airway. I would like to obtain more information from this well-structured study.

Preanesthetic evaluation and anticipation of a difficult airway is a challenge to anesthesiologists, and many methods regarding difficult airways have been studied. Recently, preoperative radiographs and even ultrasonography have been introduced as additional evaluation tools [2,3]. Your study has provided other clues for the evaluation of difficult airways.

In this study, cases of retrognathism showed a relatively higher rate of Mallampati grade III and IV views and a significantly higher rate of grade III in the laryngeal view, which confirms that retrognathism contributes to a difficult airway. However, there were no results about the relationship between the severity of retrognathism and

laryngeal view grade. In addition, other parameters, including thyromental distance, were not significantly different from that of the normal group. Therefore, we must acquire a lateral cephalometric radiograph to evaluate the presence of significant retrognathism. Can you suggest any other options for the diagnosis of significant retrognathism for situations in which the lateral cephalometric radiograph is not available? Is it possible to diagnose retrognathism by evaluating the distance from the upper incisor to the lower incisor while the mouth is closed?

In the results of laryngeal view grade, 45.4% of patients were grade I, 27.3% were grade II, and 27.4% were grade I. What is your opinion about these results? Is there any difference in the severity of retrognathism or other parameters?

You evaluated the thyromental distance in this study, but Badheka et al. used the ratio of height to thyromental distance (RHTMD) to analyze the differences [4]. We assume that if you had used this parameter, the results of this study would have been different.

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In addition, Badheka et al. used an “upper lip bite test” (ULBT) to evaluate the airway and reported that this method showed better sensitivity and specificity than RHTMD [4]. ULBT can be used to concurrently assess the range of freedom of mandibular movement and the architecture of the teeth. The patient is asked to bite the upper lip with the lower incisors and the bite is categorized as grade I (lower incisor can hide mucosa of upper lip), grade II (lower incisor partially hide mucosa of upper lip), or grade III (lower incisor unable to touch mucosa of upper lip). In this regard, we assumed that ULBT can be a good method to evaluate difficult airways caused by retrognathism if lateral cephalometric radiographic imaging is not available.

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**CONFLICTS OF INTERESTS:** No

## REFERENCES

1. Karm MH, Chi SI, Kim J, Kim HJ, Seo KS, Bahk JH, et al. Effects of airway evaluation parameters on the laryngeal view grade in mandibular prognathism and retrognathism patients. *J Dent Anesth Pain Med* 2016; 16: 185-91.
2. Randell T. Prediction of difficult intubation. *Acta Anaesthesiol Scand* 1996; 40: 1016-23.
3. Fulkerson JS, Moore HM, Anderson TS, Lowe RF Jr. Ultrasonography in the preoperative difficult airway assessment. *J Clin Monit Comput* [Epub ahead of print]. 2016 May [2016 May 17]. Available at: <http://link.springer.com/article/10.1007%2Fs10877-016-9888-7>.
4. Badheka JP, Doshi PM, Vyas AM, Kacha NJ, Parmar VS. Comparison of upper lip bite test and ratio of height to thyromental distance with other airway assessment tests for predicting difficult endotracheal intubation. *Indian J Crit Care Med* 2016; 20: 3-8.