Letters From Our Readers

To: Editor, *The Angle Orthodontist*

Re: Response to: Effects of rapid maxillary expansion on upper airway volume: *A three-dimensional cone-beam computed tomography study*. Yousef Abdalla, Louise Brown, Liselotte Sonnesen. *Angle Orthod*. 2019; 89: 917-923.

We would like to thank the reader for both taking an interest in the article and providing comments.

1) We acknowledge that adenoid hypertrophy may obstruct the upper airway, however the determination of adenoid hypertrophy from a CBCT image is subjective and we are not aware of any objective measures, which would accurately distinguish between what would be considered normal variation and pathological hypertrophy.[1,2] In the absence of any objective measurement it is difficult to define an exclusion criterion.
2) Whilst we acknowledge that the patients in the RME group did not have a significantly narrower maxilla prior to treatment compared with the control group, the RME group had posterior cross bites and significantly reduced intermolar width compared with the controls. Thus, the cross bites may have been dentoalveolar. On the other hand, an experienced clinician would acknowledge that the patients included in the present study did have indications for treatment with a maxillary expansion device. Furthermore, the patients were treated with a standard protocol, which is important in research protocols. In the present study it was demonstrated that the RME had a significant transverse skeletal effect in the intervention group when compared with controls. This significant transverse skeletal effect was not associated with a significant increase in the airway volume and minimal cross section area (MCA) in the intervention group when compared to matched controls. Therefore, it was concluded that the expansion of the maxilla does not influence the upper airway volume and MCA when compared to matched controls.

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1. Major MP, Saltaji H, El-Hakim H, Witmans M, Major P, Flores-Mir C. The accuracy of diagnostic tests for adenoid hypertrophy: a systematic review. *The J Am Dent Assoc*. 2014 Mar 1;145(3):247–254.
2. Pachêco-Pereira C, Alsufyani NA, Major M, Heo G, Flores-Mir C. Accuracy and reliability of orthodontists using cone-beam computerized tomography for assessment of adenoid hypertrophy. *Am J Orthod Dentofacial Orthop*. 2016 Nov 1;150(5): 782–788.