READER'S FORUM

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Predictors of favorable soft tissue profile outcome following Class II Twin-block treatment.

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Q1. I would like to request the authors to elaborate the end point of the twin block therapy. More specifically, I am curious whether the treatment was stopped after a reaching normal overjet or over-corrected to some extent.

Q2. Figure 2 in your article presented an example of profile silhouettes used for evaluation. If available, it may be beneficial to some of the readers to provide the silhouette examples for the favorable and unfavorable groups, respectively, for visualization of representative changes within each group.

Q3. The inclusion criteria of this study contained 'Class I molar relationship and normal overjet/overbite obtained after treatment'. Given some of the patients, namely those included in the unfavorable group, ended up with less than desirable soft-tissue profile even after treatment objectives were met in the area of hard tissues, what kind of treatment approaches do the authors recommend to improve their treatment results?

Q4. In the discussion section, the authors suggested to remove lower incisor protrusion for sufficient advancement of the mandible during the twin block

appliance therapy. Then, how would the authors recommend approaching the patients with hyperdivergent skeletal patterns? If a patient is presented with multiple unfavorable factors such as increased gonial angle, sella-nasion line to maxillary plane angle and symphysis inclination, would the authors to recommend that the twin block appliance should be avoided?

Questioned by

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A1. Thank you for the acute question. The Class II twin block treatment consisted of 2 phases. In the first phase, mandibular advancement and first molar occlusal contact were obtained. At the end of the first phase, the incisal relation is slightly over-corrected to minimal positive overjet, which is approximately less than 1 mm. In the second phase of twin block therapy, occlusal settling while keeping the advanced mandibular position is performed and at the end of the second phase, the occlusal relation becomes Class I molar relation with the normal anterior overjet. Post-treatment profile silhouettes were taken after completion of the two-phase twin block treatment and therefore I can reply as the treatment was completed with normal incisal overjet relation.

A2. I agree with questioner's request. It would have been better if we had representative silhouettes provided in the article. Instead, I would like to present them through this Q and A section as Figures 1 and 2.

Figure 1. An example profile silhouettes of favorable group. A, pre-treatment; B, post-treatment.

A3. I would like to answer this question that it depends on the case. Some cases can benefit from a fixed appliance treatment followed by premolar extraction and most cases are included in this category. But there are cases which cannot be improved by the extraction treatment alone as combined orthognathic surgery may be required. The aim of this article was to present the clinicians with helpful information so that they can discriminate the patients who will benefit from the Class II twin block treatment in the perspective of facial profile improvement.

A4. Thank you for the question. I would like to recommend avoiding the Class II twin block treatment in hyperdivergent Class II patients. As demonstrated by the

Figure 2. An example profile silhouettes of unfavorable group. A, pre-treatment; B, post-treatment.

results of this article, cases with hypodivergent skeletal patterns have better profile prognosis with Class II twin block treatment. In contrast, hyperdivergent cases may require additional fixed orthodontic treatment involving premolar extraction after the twin block treatment phase. For those cases, it is likely there would be no difference in the profile when compared to the fixed appliance treatment alone as the Class II twin block treatment has negligible benefit on the profile.

Replied by

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