408 Readers' forum

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### What about the curve of Spee?

case report by El-Bokle and Abbas (El-Bokle D, Abbas NH. A novel method for the treatment of Class II malocclusion. Am J Orthod Dentofacial Orthop 2020;158:599-611) in the October issue reported 2 cases of Class II malocclusion in which the patients were treated with inclined bite raisers beveled 45° combined with short light Class II intermaxillary elastics, showing improvement in the occlusal and profile relationships in both patients at the end of the treatment. The article was quite interesting and appreciated by us, but we have some doubts. In the bonded inclined bite raisers elastics construction section of the manuscript, it was highlighted that the choice of teeth for the bite raisers depends on the overbite that the patient presents at the beginning of the treatment. In case of a deepbite, the authors suggest placing the bite risers in the premolar region to facilitate the extrusion of the molars. One question would be regarding the Spee curve. Andrews, in his study of the 6 keys of normal occlusion, observed that a normal occlusal presents a flat curve of Spee. This way, a flat occlusal plane should be a treatment goal, and deep curves of Spee are usually corrected in the alignment and leveling phase of treatment. Patients with Class II Division 1 malocclusion have a deep curve of Spee<sup>2</sup> that is associated with an increased deep overbite. So, would posterior bite raisers' placement in the premolar region not make it difficult to correct the curve of Spee because the occlusal forces would create an

intrusive force vector? How do you correct the curve of Spee with this method using bonded inclined bite raisers elastics?

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## Authors' response

We thank the authors for their letter and interest in our article. They questioned whether leveling the curve of Spee would be compromised because of using bonded inclined bite raisers on premolars in patients with Class II malocclusion with a deep overbite because of an intrusive force vector on the premolars.

The bite raisers' main effect is a sagittal correction because of their complementary inclination and adjunctive use of short Class II elastics. Therefore, when placed on the first premolars, any intrusive component would be minimal, unlike the use of a flat bite raiser. After correction of the sagittal relationship, the bite raisers are gradually reduced, and seating elastics are used for settling the occlusion during the finishing stage. Therefore, a level curve of Spee is easily established at the end of treatment.

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# Bonded occlusal bite raisers for Class II malocclusion

It was a pleasure reading the case report in the October issue reporting a novel method for treating Class II malocclusion (El-Bokle D, Abbas NH. A novel method for the treatment of Class II malocclusion. Am J Orthod Dentofacial Orthop 2020;158:599-611).

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The authors described their technique as novel, but we would like to bring to their notice some facts. A similar method for correction of Class II malocclusion was given by Pedro Planas of Spain in 1971 and was named Planas direct tracks (PDTs). PDT has been used since then for early Class II malocclusion correction<sup>2</sup> and also for pseudo-Class III malocclusion correction.<sup>3</sup> PDTs are prism-shaped blocks incorporating inclined planes of 45° made up of composite resin directly built or cemented onto the occlusal surfaces of premolars and molars.4 The mechanism of action of PDT is also the same as bonded inclined bite raisers elastics (ie, raising the bite to unlock the mandible and keep it in the desired position). In addition to bite raisers, El-Bokle and Abbas included a fixed appliance with short elastics. Apart from this, there is no other difference between these 2 methods. The authors should have included the history of this bite raiser to give due importance to the original work of Planas. As this method of mandibular positioning has been in use since 1971, it is not justified to call it a novel method.

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# Authors' response

We read with so much interest the letter to the editor regarding our recent article, "A novel method for the treatment of Class II malocclusion."

The authors pointed out that we did not include the Planas direct tracks (PDT) introduced by Dr Planas¹ of Spain in 1971 in our references. We would like to draw the authors' attention to the fact that our article was a case report and not a literature review that would normally include all of the possible references regarding our work. In addition, we did mention that the introduction of inclined bite planes was as early as 1899.

The authors also claim that the mechanism of action of PDT is the same as our bonded inclined bite raisers elastics. We have to disagree because of the fundamental differences between the devices. First, the inclined raisers that we use are not merely prism in shape like the PDT. A plateau is intentionally added to make it difficult for the mandible to occlude more distally, which could worsen the Class II relationship (Fig 1 in our article). Second, elastics attached to an orthodontic appliance are a key factor in maintaining the advanced mandibular position, especially during sleep. Third, our technique is specific regarding the amount of advancement (2 mm) and gradual activation, whereas the article referenced by the authors for Class II treatment by Gribel and Gribel<sup>2</sup> was a case report on Class II treatment with PDT in the deciduous dentition in the absence of any orthodontic appliances. We do find their technique hard to implement at this young age and highly subject to relapse.

We hope that we have clarified the differences between our technique and the others, implying the novelty of our technique.

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# Risk factors for maxillary impacted canine–linked severe lateral incisor root resorption

n article by Wang et al was published in 2020 with the purpose to investigate the risk factors for impacted maxillary canine–linked severe lateral incisor root resorption (Wang H, Li T, Lv C, Huang L, Zhang C, Tao G, et al. Risk factors for maxillary impacted canine–linked severe lateral incisor root resorption: a cone-beam computed tomography study. Am J Orthod Dentofacial Orthop 2020;158:410–9). Although the article was quite informative, we have some questions.

The legend for Figure 10 indicates P <0.1 to be statistically significant for the chi-square or Wilcoxon test between the study group and the control group for each