If not, how can I justify to my growing Class II retrognathic patient that the proposed 2-phase treatment strategy will predictably eliminate the need for future orthognathic surgery?

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Jones jig and correction of a Class II malocclusion

I have a question for the authors of the article "Evaluation of the Jones jig appliance for distal molar movement" that was recently published in the *Journal.*[1]

Exactly how does moving all the maxillary teeth mesially by 1.5 mm help treat a Class II malocclusion? I realize that the Jones jig temporarily "distalized" the molars, but after the progress records, they moved forward 4 mm, ending up 1.5 mm mesial to their initial position, along with the bicuspids and incisors.

It appears that during the 30 months of round-tripping the molars and bicuspids, either (1) the lower molars moved mesially, (2) the mandible outgrew the maxilla, or (3) the mandible was postured forward.

Please help me understand how the Jones jig helped—inquiring minds want to know.

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Dr Sinha responds

Thank you for reading the article carefully. I appreciate the questions and will be happy to try to explain the implications of the results. But, before I get into the specific answer to the question, let me detail the following facts regarding Class II nonextraction treatment and the growth and development of the maxilla:

1. The molar distalization reported relative to the pterygoid vertical is similar to that reported in other studies that used different mechanics, including those by Hubbard et al[1] and Ghosh and Nanda[2] and those that studied the Herbst appliance,[3-5] the Wilson method,[6] and repelling magnets.[7-11] The results from pretreatment to posttreatment are almost identical to the results reported by Hubbard et al.[1] In that study, it was reported that, after completion of orthodontic treatment on a sample of patients treated with the Kloehn headgear (from Dr Kloehn's practice), the molars were corrected to a Class I occlusion in every case; however, the molars had migrated 1.6 mm, which was similar to other reports in the literature.[12,13] This closely mimics the results of our study, which reported approximately 1.5 mm of molar migration.
2. Numerous studies have reported the effects of distalizing mechanics. However, most researchers have limited their examination to the period from pretreatment (T1) to postdistalization (T2). There are 2 factors to consider in evaluating the effects of appliance therapy combined with or followed by complete edgewise orthodontic treatment: the effects of the edgewise appliance treatment and the effects of the growth and development of the craniofacial skeleton, which could have profound effects on the ultimate position of the teeth as well as on results of longitudinal evaluation.[14]
3. Growth and development result in a downward and forward movement of the maxilla, along with which the maxillary molars obviously move forward.
4. Concurring with the findings of Hubbard et al,[1] we reported a 2-mm mesial restriction of the maxillary molar (on completion of orthodontic treatment) when compared with the Class I normals.[14]
5. Class II correction is almost always a combination of maxillary molar distalization, mandibular growth, and mesial migration of the mandibular molar, among other factors.

The answer to the direct question of how moving the maxillary teeth mesially by 1.5 mm (the study reported results on the first molar from pterygoid vertical) corrects Class II malocclusion can be gleaned from the above-mentioned reports in the literature and the facts regarding growth and development. First, the molars moved 1.5 mm forward from pretreatment to completion of orthodontic treatment, which was similar to the results with Kloehn treatment reported by Hubbard et al.[1] In addition, both Hubbard et al[1] and our study showed a restriction of the maxillary molar by 2 mm when compared with Class I normals.[14] Second, growth of the maxilla moves the first molar along with it relative to the pterygoid vertical, and, hence, you see a mesial movement. Class II correction occurs as a result of a combination of factors.

I hope this discussion helps you in understanding the issue. Thank you for the inquiry.

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Concertacesion

In this time of globalization, it is very easy to fall into what is known in political circles in Mexico as *concertacesion* (from *concert*, a mutual agreement, and *cesion*, to hand over).

In reference to the recent editorial that discussed Dr Judith McFadden's article describing the wants and the needs of patients, I would like to express my opinion.[1] We, as orthodontists, can never plan treatment solely on the desires of the patient; the treatment plan must be developed by the orthodontist and based on what previous studies set out and what the clinical eye of the orthodontist determines is best. The "patient point of view" should not be part of the discussion. For me, this point of view (what the patient wants) has almost nothing of value. I admit that in the borderline case of extraction/nonextraction, it is possible to involve the patient to some degree. But what I can't do, for example, is discuss with the patient whether he would prefer to have the upper premolars extracted to achieve a Class I occlusion or keep the malocclusion in order to avoid extractions. The clinician must consider only the best occlusion and dental health and ignore other considerations, such as status (many patients seek treatment more for social matters than for health reasons) or cosmetics (patients may want to resolve crowding or spacing for the sake of appearance, not occlusion).

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From treatment planning to treatment results: The luck of the draw?

I read with interest Dr Turpin's comments in the August 2000 editorial regarding the prospective Diplomate at the American Board of Orthodontics Examination who admitted that he "just got lucky" in producing an excellent case result.[1]

I think that, rather than deserving condemnation, the candidate's candor is to be admired. As a member and chairman of the committee responsible for scrutinizing the many excellent cases presented for admission to the Angle Society of Europe over a period of 6 years, I was frequently struck by the seeming lack of correlation between treatment planning and the results of treatment. It is apparent that case selection is always made on a retrospective basis. Cases shown to examiners as examples of excellent treatment are not generally chosen from all the others in the candidate's practice by virtue of careful planning and treatment technique. They are selected solely on their appearance 2 years out of retention. This particular snapshot in time is the result of the interplay of a multiplicity of factors over several years of treatment, retention, and postretention—few of which are actually under the control of the clinician. Some of these factors may be helpful in arriving at that ideal snapshot and could be considered as "getting lucky"—for example, good forward mandibular growth. Others, such as a vertical growth tendency, may be decidedly unhelpful. Often, these factors have a significantly greater effect than the treatment procedures themselves, and for this reason we see a plethora of different treatment approaches that will still produce an excellent result for an individual case. Hence, the bewildering array of different brackets, wires, and techniques on offer in today's orthodontic marketplace, all of which lay claim to being clinically "effective." Few graduate schools teach even the same basic technique to their students, yet all naturally believe that their approach is the most soundly based of all. It is doubtful if many of the techniques in use today would stand up to the "gold standard" of a randomized prospective controlled clinical trial.

Although we are entering the 21st century, we are still fly-