

Combination Treatment to Meet Market Demands

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As a practice management journal, Praxis will have clinical topics limited to areas where the practice management considerations are great.

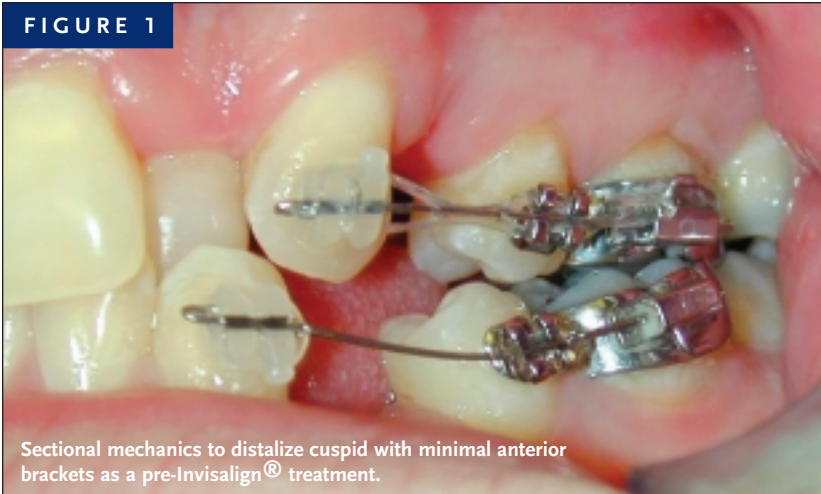
Managing Invisalign® with combination treatment can inject growth into an orthodontic practice and distinguish the specialists' role in what some view as simple treatment.

PART III:
PRE-INVISALIGN®
MOLAR
DISTALIZATION
FOR CLASS II
CORRECTION

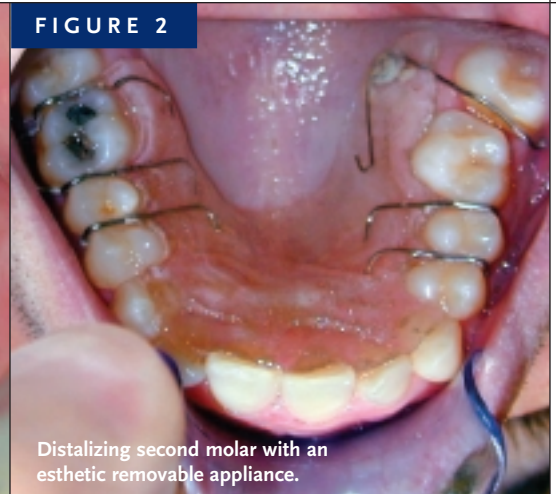
Invisalign® treatment is not simple. Managing case selection, communication, expectations and supplemental pre- and post-Invisalign® treatment can be both challenging and gratifying.

We all know that a large percentage of adults could benefit from orthodontic care. We also realize that we see only a very small percentage of these orthodontic candidates, often because they don't see their problems as severe enough to warrant wearing braces as an adult.

Also, their dentist may not be tuned into orthodontic problems and is probably not seriously promoting orthodontic correction. When these patients present for Invisalign®, a large portion of them have Class II occlusal discrepancies in combination with crowding. The crowding is typically their chief complaint. But the class II may be what disqualifies them for Invisalign® treatment by many orthodontists. The options are: no treatment, convince the patient to wear braces, or use auxil-

FIGURE 1

Sectional mechanics to distalize cuspid with minimal anterior brackets as a pre-Invisalign® treatment.

FIGURE 2

Distalizing second molar with an esthetic removable appliance.

ary treatment to get class II correction or improvement.

Premolar extraction for class II correction is less popular today and premolar extraction cases are currently challenging for Invisalign®. However, if the crowding is severe, this may be an easy Invisalign® case, especially if auxiliary treatment is an option. If nearly all of the space of the premolar(s) is needed for resolution of incisor crowding, once the canines are retracted, little incisor retraction will be needed. In other words, once the canines are retracted, the orthodontic job is alignment for which Invisalign® is quite effective. The canine retraction is challenging for Invisalign® because the root movement needed will tend to create slippage of the aligners, requiring the inconvenience and expense of midcourse correction (new impressions and refabrication of aligners). This slippage is being increasingly controlled with attachments of various sizes and shapes and by increasing the number of aligners at that stage of treatment or by increasing the number of days of wear of each aligner.

Cuspid retraction using a sectional posterior mechanics provides controlled cuspid distalization and reasonable patient esthetics (Figure 1). Many patients presenting for Invisalign® will accept “clear braces on their back teeth” for four to six months as a stepping stone to Invisalign® treatment. Even partial retraction of the cuspid will create a better situation from which to transition into Invisalign®.

Molar distalization has become an increasingly popular means of Class II correction. Most adults are not interested in a class I posterior occlusion, but they do want the reduction of overjet and/or crowding that molar distalization makes possible. Invisalign® can routinely accomplish about 2 mm of molar distalization. But we often need more.

Cetlin-type appliances are great pre-Invisalign appliances, because they are removable and can be made invisible by not using a labial bow (Figure 2). Asymmetric cases where distal-

FIGURE 3A

Figures 3a,b,c: Dental alignment prior to Invisalign®

FIGURE 3B**FIGURE 3C**

FIGURE 4

Distalization accomplished with removable prior to Invisalign® treatment.

FIGURE 6

Jones Jig modified to work without anterior braces as a pre-Invisalign® treatment. Class II elastics are supported by vacuform-type aligners.

FIGURE 5A

Figures 5a,b,c: Post Invisalign® treatment. Extrusion of the upper right lateral still needed in refinement stage.

FIGURE 5B**FIGURE 5C**

ization is only needed on one side are of course easier. It may be the practitioners' preference to distalize the second molar separately, followed up by distalizing the first molar. Some patients adapt easily to these appliances. Others do not. Figure 3 shows an asymmetric Class II case before Invisalign®. The result of using a removable appliance to distalize posterior teeth on the class II side is illustrated in figure 4. The distalization allowed for Invisalign® to more expediently and more predictably correct the posterior occlusion, the crowding and the midline, as shown in figure 5.

For a more predictable appliance, we modified the Jones Jig to be usable without anterior braces (Figure 6). As usual a Nance is placed from the first premolars for anchorage. To avoid braces on the anterior teeth vacuform aligners are used with bonded buttons to support Class II elastics. You might consider adapting your most efficient molar distalizing appliance(s) to be suitable for pre-Invisalign® use.

This series of articles has illustrated esthetic techniques to capture intrusion, expansion and class II correction prior to employing the alignment strengths of Invisalign®. Such adjunctive approaches can make a wider range of cases appropriate for Invisalign®, thus expanding the number of adults that would accept orthodontic treatment. These approaches may also give an orthodontist more confidence in starting some difficult cases, ensure a more ideal result, and challenge a practitioner to draw on the full spectrum of his or her orthodontic experience. ■

Dr. Hickory is the Editor in Chief of Praxis. He is a graduate of Trinity College (B.S.) Connecticut. He received his DMD, orthodontic certificate and MDS from the University of Connecticut School of Dental Medicine. Dr. Hickory was a full-time faculty member of Orthodontics at the Vrije University in Holland and the University of Maryland. He has over twenty years of experience in orthodontic private practice and continues to consult and teach internationally.