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THE EDITOR'S CORNER

Solving the Molar-Distalization Dilemma

Almost exactly eight years ago, I wrote an Editor's Corner entitled "The Fascination of the Class II". In that editorial, I posed the question, "Just what is it about the Class II malocclusion that so fascinates orthodontists as to inspire such a large volume of literature devoted to managing a single classification of malocclusion?" I posited that perhaps one explanation for this fascination was that the Class II problem lends itself to innovative gadgetry and appliance development. Many orthodontists I know genuinely enjoy tinkering and experimenting with new ways to address old problems. And the Class II malocclusion seems to be a bottomless well of inspiration for invention.

Anchorage has always been a major issue for a clinician to overcome in a Class II case—no matter what etiology led to the malocclusion or how it is manifested anatomically. Whether the problem is skeletal or dental or (more often) both, and whether the problem lies in the maxilla or the mandible or both, obtaining adequate anchorage to allow whatever therapeutic measures are applied to directly resolve the anatomical problems without bringing about undesirable changes in the anchorage units has always been a source of frustration for the fastidious practitioner. Pull the upper arch back using the lower as anchorage, as is done with Class II intermaxillary elastics, and the lower anteriors will flare unless extraordinary measures are applied. Push the upper molars distally using either the upper anterior teeth or the palatal vault as anchorage, and the upper anteriors will flare—in which case they have to be "round tripped" to finish the case.

Various headgears have been designed over the years to provide extraoral anchorage for molar distalization. It makes sense: if you can use the occiput or the crown of the skull for anchorage, no untoward incisor flaring will occur in either arch. J-hook headgears allow for canine retraction from a Class II to a Class I position, and then for retraction of the upper incisors without taxing and flaring the lower dentition. Facebow-type headgears can hold the maxilla in place sagittally while the mandible grows for-

ward, providing skeletal Class II correction in the growing patient. In a different force system, facebow headgears can distalize the upper molars into Class I positions and hold them there while the rest of the upper dentition is retracted appropriately. This all sounds great on paper and, indeed, works wonderfully in cooperative patients. The problem is—as any orthodontist who has been in practice for any amount of time knows—it is extremely difficult to gets today's kids to wear their headgear. Though I know several clinicians who are genuinely blessed with the ability to motivate less-compliant patients into wearing their headgears, along with their intermaxillary elastics, I, unfortunately, was not bestowed with that blessing.

Apparently, I am not the only one afflicted with this shortcoming. The paired difficulties of anchorage and compliance may well be the challenges that have made Class II treatment so intriguing to so many innovative orthodontists. Over the years, these challenges have inspired two broad categories of orthodontic invention: intra-arch molar-distalizing appliances and temporary anchorage devices. Given the wealth of literature devoted to TADs, much of which has been published in JCO over the past decade, we should all recognize by now that they can be applied to solve practically any anchorage challenge. Their shortcomings lie primarily in the area of transverse arch development. Intra-arch molar-distalizing appliances have essentially eliminated the need for intermaxillary elastics, and palatal expansion capabilities can easily be incorporated into their design. The main disadvantage of molar distalizers to date has been flaring of the incisors and loss of anterior anchorage.

Dr. James Hilgers, an author familiar to JCO readers as a long-time Contributing Editor, has developed several innovative intra-arch appliances over the years—particularly the Pendulum and its derivatives—for Class II correction requiring little or no patient compliance. In this issue, Dr. Hilgers and his co-authors, Drs. Shannon Hilgers Nissen and Stephen Tracey, present four cases that illustrate the use of the Pendulum in conjunction with skeletal anchorage. In each patient, the TADs prevented anterior anchorage loss resulting from molar distalization. We finally have what seems to be a system that allows for complete Class II correction without depending on patient compliance and without raising concerns about flaring the incisors. What more could we ask for? RGK