THE EDITOR’S CORNER

Long-Term Assets

During almost a quarter-century in orthodontic education, one thing I have consistently noticed in both orthodontic students and new graduates is their propensity to try everything new that comes along. It’s easy to understand—to them, practically everything is new. Although it may be the best and safest policy to follow professorial advice, like parental advice, there is something luridly appealing about trying something different from what we’ve been taught by our elders. I have to confess that early in my career, I was among the worst offenders. Functional appliances, lingual braces, “arch development”—I tried them all. As I matured in the profession, I found myself relying more and more on the tried and true. As my expertise developed, the desire to try new things dwindled. I found what worked for me and stuck with it.

One of the worst experiences I had during my first years of practice involved a new gadget for distalizing upper first molars in nonextraction treatment of Class II malocclusions. The glossy pre- and post-treatment pictures were seductive, promising treatment times that were certainly alluring to me at that stage of my professional development. I jumped on the nonextraction, upper-molar-distalizing bandwagon with both feet. The cases treated fairly quickly, and the initial results looked good. Other than a distal tipping of the upper first molars, the post-treatment records demonstrated acceptable results. Once these patients started showing up for their annual follow-up visits, however, my initial cockiness turned to anxiety and self-doubt. The upper arches I had treated with the distalizing gizmo had all relapsed. Had I treated the cases as I had been taught by my venerable orthodontic professors, I seriously doubt that any of these upper arches would have relapsed to the degree that I saw in this set of patients. Suffice to say that I retreated the cases at my own expense and learned a valuable lesson.

To avoid such catastrophes, the careful practitioner turns to the scientific literature. It seems prudent even to the callowest among us to try new methods only after they have had at least some validation. Unfortunately, few
appliances are subjected to long-term evaluation prior to being brought to market. The distalizing device I mentioned had shown good results in a couple of articles; the problem was that the only post-treatment records were taken at about the same time as the cases were debonded. No long-term studies were available.

Considering that orthodontics is, by nature, a clinical science involving relatively slow treatment, long-term studies are often impractical; we get by as best we can with one- or two-year follow-up studies. In terms of validity, however, a long time frame for orthodontic outcome analysis might be better measured in decades rather than months. When it comes to the reliability of orthodontic research, nothing comes close to the value of a long-term follow-up study.

The orthodontic literature does contain some real gems involving long-term follow-up. One of the most interesting papers I’ve ever read was written by my old professor at the University of Rochester’s Eastman Dental Center, Dr. J. Daniel Subtelny.1 It follows a cleft-palate case—in this case, Dr. Subtelny’s son—from birth through childhood, adolescence, and adulthood. I probably learned more about the orthodontic treatment of cleft lip and palate from this one paper than I did from all of the others I’ve read over the years. Classic long-term follow-up studies would also have to include Dr. Rolf Behrents’s dissertation on adult craniofacial growth, published in book form as An Atlas of Growth in the Aging Craniofacial Skeleton.2 In this analysis of long-term data, Dr. Behrents proved that the human craniofacial skeleton continues to grow and change throughout life; the author was subsequently interviewed on the subject by my mentor and predecessor as Editor of JCO, Dr. Larry White.3 Another hallmark long-term follow-up study involved the research done at the University of Washington by Dr. Robert M. Little and colleagues, which showed there is little we can do to predict, let alone prevent, relapse. Their studies involved the analysis of outcomes years and years after treatment or initial data collection.4,5 The research of Dr. Little’s group continues to be cited by today’s clinicians, including Dr. Dwight Damon in this month’s JCO Interview—which may be an indication of how few rigorously conducted, comprehensive long-term studies are available to us.

In this issue, JCO also presents an article by Dr. Morton S. Wintner on the interdisciplinary treatment of a severely displaced mandibular canine. Although the progression and treatment of the case over a course of 18 years should not be surprising to any experienced orthodontist, the outcomes and conclusions add credence to the scientific validity of Dr. Wintner’s approach and provide a good road map for practitioners who have yet to experience such a case. We can all learn something of value from this kind of long-term follow-up.

REFERENCES