How to improve our diagnostic acumen: Teach it to our residents – Part II

By Dennis J. Tartakow, DMD, MEd, EdD, PhD, Editor in Chief

To continue the discussion regarding what our residents are missing in his or her orthodontic training, nothing is a better teacher than personal experience(s) regarding what we do and how we do it in our practices. Expert training is a reflection on the educators and mentors in postgraduate residency programs. The following considerations are important subjects in the diagnostic process and examination; they are especially valuable and significant for the professional preparation of residents.

- See RESIDENTS, page 6

NURTURING DEVELOPMENT NATURALLY
MEETING PARENTS DEMAND FOR EARLY ORTHODONTIC TREATMENT

myobrace®
MYOFUNCTIONAL ORTHODONTICS

“"The Myobrace System™ has packaged traditional Myofunctional Therapy, Arch Expansion and Dental Alignment into one integrated system which is easily implemented, for better results, with less time and effort.”

See us at the AAO - Booth #1243
Myobrace System: An evolution in orthodontics

By Rohan Wijey, B Oral H (Dent. Sc.), Grad. Dip. Dent. (Griffith), OM

Many have now accepted The Myobrace System™ is peerless in terms of the potential to cajole the orofacial muscles into widening arches and allowing good dental alignment.

There exists a common misconception among dentofacial orthopedists, however, that although The Myobrace System is proficient at straightening teeth, traditional functional appliance systems are better for facial development. This was a belief to which even I subscribed before I began to actually use the system myself. Although I paid lip service to the role of muscles in malocclusion, I had not truly appreciated the potential to correct malocclusion by re-training these muscles.

Indeed, most experienced Myobrace practitioners have come to regard traditional functional appliance therapy as simply another allotropic form of traditional orthodontics: Mechanical interventions that ignore the role of muscles.

To be fair, much of the skepticism leveled at The Myobrace System seems to be borne out of misgivings about myofunctional therapy.

Myofunctional therapy (MT) as a science has been extant for more than 100 years, enjoying great popularity, especially in the 1970s. Although it has been proven to be able to elicit impressive results, Smith-peter and Covell (2010)1 have cited a number of reasons for a general lack of enthusiasm:

1. Limited office space for providing therapy.
2. Absence of MT providers.
3. Difficulty and amount of time required.
4. Inadequate training.
5. Belief that there is insufficient scientific evidence to support orofacial MT.
6. Observations that not all MT providers have the same expertise, so successful results are unpredictable.
7. Hope that function will follow form.

The Myobrace System has managed to package traditional myofunctional therapy into a system that has ensured easily reproducible, better results, in less time, with less effort.

The system, thus, represents a confluence and evolution of fixed appliance therapy, functional appliance therapy and myofunctional therapy.

The case (Fig. 1) is a prime example of treatment outcomes satisfying the goals of proper alignment, facial development and treating muscle dysfunction for a more stable result. She was treated with an upper Farrell Bent Wire System™, together with a K1 Myobrace®, followed by a K2 and the Myobrace T1 and T3 for final alignment.

From a dental perspective, of note is the space recovered for the upper right and lower left canine teeth. From a facial perspective, the naso-labial angle has improved significantly, while it is clear that the vertical clockwise direction of growth has been re-oriented to a more horizontal direction. These outcomes have been achieved by harnessing the power of the muscles with a system that is more time-efficient.

The Mission of the AAO Foundation, the charitable arm of the American Association of Orthodontists, is to “advance the orthodontic specialty by supporting education and research”.

Foundation funding ensures the future viability of the specialty by investing in the next generation of educators and researchers. Since 1994, the AAOF Awards Program has contributed $9.5 million in funding, primarily in support of Junior Faculty.

In addition to support of Junior Faculty, the Foundation has created the AAOF Craniofacial Growth Legacy Collection (www.aaoflegacycollection.org) designed to preserve representative materials from the participating orthodontic collections, improving orthodontic research in the U.S. and Canada.

The latest fundraising effort of the AAO Foundation’s overall Continued Commitment to the Specialty® is the new Research Initiative focused on improving orthodontic research in the U.S. and Canada by bringing in $5 million in new pledges, so that overtime and calculated at an average rate of return of six percent, this will result in an additional $300,000 restricted for orthodontic research.

Please consider a pledge to support this new initiative!

For further information contact Robert Hazel, rhazel@aaortho.org, 800.424.2841, #546 or visit our website at www.aaofoundation.net
401 North Lindbergh Blvd.
St. Louis, MO 63141-7816
Who Relies on OrthoSynetics?

He Does

Running an orthodontic practice is a time-consuming endeavor, but who says it has to take away from the time you spend with your family?

OrthoSynetics provides every service you could need for a successful practice by integrating the business and administrative aspects of your practice. Everything from Marketing and Human Resources to Practice Financial Services.

With OrthoSynetics on your side, you’ll be there. Stop by AAO Booth #2537 to find out how our services may be cost neutral.
Ormco Corporation offers its new Damon Clear2 bracket at the AAO

By Ormco Corporation Staff

A survey conducted by the American Association of Orthodontists (AAO) found that when meeting someone new, 37 percent of Americans notice a person’s smile before anything else. This comes as little surprise to the orthodontic community, but it speaks directly to the growing importance of esthetically pleasing orthodontic solutions that deliver extraordinary results.

At the 2014 AAO Annual Session, Ormco’s Damon Clear2 bracket was featured in its progressive line of Damon System products. Damon Clear2 features standard torque bracket enhancements and precision engineering for treatment efficiency and consistency. With a new ultra-precision slot, Damon Clear2 boasts two times the rotational control for meticulous finishing and efficient treatment.

In addition to optimized standard torque brackets, Damon Clear2 features the same core design as the original Damon Clear passive self-ligating brackets, which are used with the Damon System’s high-tech, light-force archwires and minimally invasive treatment protocols.

Purchases of Damon Clear2 also contribute to Ormco Lifetime Rewards, a rewards program in which points never expire. With Ormco Lifetime Rewards, clinicians earn points on every dollar spent on Ormco appliances and redeem them for numerous high-quality products and supplies. Research indicates that, through the rewards program, the average doctor earns up to $25,000 in free products.

Additionally, doctors offering the Damon System benefit from Ormco’s industry-leading web presence, which includes a broad range of marketing assets and staff training tools available at www.marketing.ormco.com. This robust practice marketing website hosts a library of patient imagery, consultation tools, practice videos, press release templates, webpage assets and more.

For doctors seeking continued learning, Ormco provides world-class C.E. programs including the annual Damon Forum, regional education events, office courses, webinars, roadshows and more.

**Residents, Page 2**

Appraising Disease

orthodontic resident to recognize.

• Clinical photography often demonstrates dermatological diseases, tumors and other pathology of the head and neck. We can diagnose important health issues by taking the time to look. Diagnosis of diseases of the skin in our patients, e.g. squamous cell carcinoma, basal cell carcinoma, melanoma, etc., is an astute part of our responsibility and demonstrates good judgment as a doctor. Because orthodontists take so many clinical photographs, very little time is required to scan for such pathology prior to examining facial structures and the dentition. Accuracy and precision are extremely important, for example, in the intraoral photo (Fig. 1), this documentation of an aberrant occlusal plane cant or just sloppy photography?

Clinical photography can identify many diseases of facial expression or appearance. Facial diseases are often related to development or physiology and can affect facial structure, facial behavior or both. Through clinical photography, we can teach the resident how to recognize various signs in the face that indicate particular diseases. Signs of facial diseases include (a) changes in appearance, (b) alterations of muscular movement, and (c) behavioral expression. Facial signs are often used to diagnose the presence of certain diseases that can be diagnosed via clinical photography.

The most obvious relationships between facial signs and disease are for the genetic and congenital diseases. Specific genetic abnormalities cause such diseases as Lesch-Nyhan, Down syndrome and Cornelia DeLange syndrome, producing specific patterns of facial abnormality. Certain congenital diseases such as fetal alcohol syndrome, cleft lip and palate and hydrocephaly also produce specific facial signs and symptoms. Many infectious diseases can be diagnosed from facial signs, including Lyme disease, fifth disease, shingles and HIV infections.

• Articulated Models are not as popular as hand-held models and most orthodontists never consider using an articulator except for surgical cases. However, they may be extremely helpful in diagnosis, treatment planning and for medical-legal protection. When documenting patients with asymmetry, such as when the cant of the occlusal plane is not level, hand-held models are often prepared inaccurately without demonstrating the exact degree of inequality or anomaly (Fig. 2). Articulated models provide excellent representation of the patient’s condition and are extremely accurate.

There is much to reveal as we appraise the past and contemplate the future. Learning can be defined as useful changes in behavior resulting from reflection and experience. How can we teach our students to become better practitioners and sharper diagnosticians? Will they learn to focus on the dental problems in the context of, and in concert with, a patient’s general health issues?

**Reference**


**Fig. 1.** Photo/Cobourne & DiBase, 2010, p. 25

**Fig. 2.** Photo/Cobourne & DiBase, 2010, p. 16

As orthodontists, we are still responsible for diagnosing pathology in the head and neck, and treating or referring the patient to someone who can provide proper care. By example, we must demonstrate how to be the best orthodontist possible and the consummate expert in our field.