Clinical Perspective

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The Winning Team: Orthodontics and Myofunctional Therapy

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Thank you for this opportunity to get together with you. I am a clinical orthodontist in private practice. Although I have had teaching and research experience, my emphasis now is centered on the most efficient and lasting case I can achieve for those in my practice. This short statement of an objective may help to explain how my interest in myofunctional therapy began.

When graduated as an orthodontist, one is a highly trained biological mechanic. Using biological principles, one must move the teeth and tissues into balance and harmony. After getting them there, the balance of forces must be such that the harmony and stability are maintained. With such training and the strong emphasis on mechanics, it is small wonder that the biology and muscle function fall behind. Many wish to know how to move a tooth; but fewer, why and where. (Similarly, a speech pathologist or myofunctional therapist may wish to know new exercises, but may express no interest in the anatomy and physiology.) As the orthodontist grows in experience, it is hoped that the mechanics takes a secondary place and the diagnosis and other factors will come more strongly into view. If one does not look for tongue thrust, it quite obviously is not seen. If one does not check joints or ask questions about them, one sees few joint problems, and so on down the line.

As a practice progresses, some cases linger for an excessively long time, and others return after a period of time with a result far different and less acceptable than at the time of retention. Some of these problem cases may be attributed to poor cooperation from the patients. This is no small factor. Others may be due to a growth pattern which may be far from a desired or planned outcome. Still other interfering factors may include the third molars or wisdom teeth, the transeptal fibers, or other involvements from a lengthy list. In training, all the muscles and bones are covered in detail with actions, enervations and everything

conceivable; but why is the tongue considered an adaptable organ which, when the teeth are corrected, adapts and falls quietly and sedately into place? Why is the beautiful orthodontic case falling apart in spite of retention, no third molars and much prayer? Could not the tongue play a part in relapse? What about the problem of thrust? Some feel the answer to tongue thrust lies in the various thwarting devices, such as cribs and spurs. With a mechanical background, this, at first, appeals to the orthodontist. The devices are quite cheap to make and install and require little thought or effort. I fell into this trap and worked hard with spurs for some years before feeling this just was not the answer.

In reports of their "research," some writers tell us that, in the presence of a tongue thrust, tongue pressures are not against the anterior teeth in a Class II malocclusion. They neglect to say whether the mouth was open or closed at the time of measurement, as this was felt to be unimportant.

The next step is to get a cookbook on myofunctional therapy with some steps and exercises. Again, at the chair giving a few exercises or a book with checks once per month is doomed to failure and cannot be called myofunctional therapy. However, the seeds of correcting tongue habits through therapy are planted. A new interest and logical thinking will lead one to a path of continued study and work on muscle balance and the tongue. (Why did I not think of this years ago?)

Following is a brief description of procedures in my office. First, of course, is a careful orofacial examination. Evidence of lip strain, peach seeding on the chin, open bites, crossbites, and thrust seem to demand your attention. When checking the bite, the patient is told to touch his tongue as far back on the palate as possible, which shows almost automatically if the tongue is tied down and demonstrates the coordination of the tongue. The patient is relaxed while doing this activity, and one can quickly pick up a wealth of

information. Consider this: if the maxillary arch is collapsed with the buccal segments in crossbite, and one finds an ovoid mandibular arch form, one is also almost certain to find a low tongue posture. (No wonder the buccal crossbite was feared; if the posture of the tongue was not altered, a corrected buccal crossbite often collapsed.) The nares and any presence of breathing problems, allergies, and other contributing factors are noted during this examination.

The parents are present during the initial visit. As the problems are described, the concepts of muscle balance, tongue, jaw, teeth, and lip are explained to the parents and the patient. They are informed that mechanically we may correct the bite, but the light constant forces of the tongue muscle will soon overcome and prevail. Reinforcement in consultation with headplates, casts, etc., is the second step. This initial introduction to the problem of tongue thrust, though short, is most important. When ready to begin myofunctional therapy, the patient is already primed, and the prescription of therapy does not seem like an afterthought. To wait until after treatment, or even late in treatment, to say, "Oh, by the way, you have a tongue thrust and we are going to send you off to someone else at an additional fee," has three strikes against the therapist, the therapy, and the result.

In my office, the myofunctional therapist has her own room and has full access to records, headplates and x-rays, models, etc. Her treatment sheet is in the patient's general folder, but is a different color. The outside of all charts in the myofunctional program has a yellow tag which alerts me automatically to this fact. When possible, myofunctional therapy and orthodontic appointments are combined to save the patients from having to make extra trips, but, for myofunctional therapy to be effective, the patient needs to be seen more frequently than the usual once-per-month orthodontic

appointment.

Rather than presenting the patient with a book of exercises, we use folders into which we can insert treatment sheets tailored to each patient's needs. By mimeographing these sheets, we can keep the cost down and also change the therapy instructions as often as we desire. (If the instructions are printed, one is less likely to revise and update.)

Having the therapist in the orthodontist's office yields helpful side effects. In addition to administering myofunctional exercises, the therapist determines whether elastics are being utilized and principles of dental hygiene followed; if not, a notation is made and these omissions are followed up. The toothbrush sinks are utilized. To avoid the excuse, "I just came from school and could not brush," each patient has a numbered case for his or her own brush.

Iceing and stroking are new techniques which are being utilized in our therapy program, and we find them most effective. We have retained the squirt bottle, tongue depressor, straw, and crackers from the more traditional myofunctional approach. (The crackers in my office have a way of vanishing rapidly. It seems that many individuals from the laboratory technicians to the cleaning people use crackers for all sorts of chewing exercises!)

Tongue posture is the most important segment of therapy. Emphasis is placed on the fact that "the tongue will always function as it sits." All exercises and activities are centered around good tongue posture. Most all swallowing exercises are preceded by placing the tongue in the correct posture position. We like to keep the patient conscious of the tongue as long as possible. The patient is re-checked at retention, for with the change from the appliances to retainer, we watch for slippage and relapse. Film strips are used to reinforce the therapy when deemed advantageous.

Letter writing is necessary but time consuming. We do send letters and progress reports to other dentists and orthodontists; however, we try to avoid unnecessary correspondence by keeping good notes.

If a thumb or finger habit is present, we undertake correction first before any consideration of oral myofunctional therapy. We prefer to do any surgical freeing after starting therapy, rather

than before, as we find we achieve better results. Correction of large tonsils, adenoids, and nasal obstruction is most difficult. Many physicians seem to have difficulty in thinking beyond infection. Allergies present another problem. Fortunately, I can write prescriptions to test by medications before referring to an allergist.

One of the hardest things to tell a patient in therapy is that he is not doing the assigned work. Rather than bringing his shortcomings out into the open and creating an unpleasant situation, we try to motivate the patient. It sometimes becomes imperative to dismiss a patient. Dismissal is hard, but it becomes a necessary fact of life, and it makes good common sense with the non-cooperating patient. Return to treatment is only at the patient's request. We have found limited success in retreatment of these recalcitrant cases.

Motivation is an important factor. If oral myofunctional therapy is considered part of the program and stressed from the start, patients often ask, "When do I begin my therapy?" This gets the program off to a good start, and we can then work to maintain the momentum rather than struggle to get the patient started, only to have him falter and drop by the wayside.

To achieve a winning team, the orthodontist must do his part to diagnose, treat and retain. To expect the oral myofunctional work to do the job of the orthodontist is wrong and will ultimately lead to poor results, failure and dissatisfaction. Many spaces are closed rapidly mechanically, but with myofunctional therapy, the closure is easier, less strained, and the results are more lasting without fighting constant tongue pressure. This, in return, gives a better environment and allows the tongue work to progress more easily and with less frustration.

To attempt to eliminate the orthodontist by myofunctional work is equally undesirable. Results are often weak and the stability poor in many cases. A few millimeters of space closure may be achieved through myofunctional therapy, but this does not correct the overjet, rotation, and buccal interdigitation. Though some may think these aspects are small and unessential, those working with temporomandibular joint dysfunction

will agree that small factors are most important. Shifts, high contacts, and poor balance may cause pain and lead to early loss of teeth. Oral myofunctional therapy replaces neither orthodontics nor orthodontists, nor does mechanics eliminate the need for oral myofunctional therapy.

For a time, many orthodontists proclaimed myofunctional therapy as a panacea that would solve all their problems. Many of those same orthodontists, however, became disillusioned when trying a few exercises at the chair or when giving a patient a book of ready-made exercises with little follow-through, and then experiencing failure. Other orthodontists sent patients out for myofunctional therapy and were also disillusioned. Fees were charged, therapy was not individualized, and the patient was "cookbooked" to an unsatisfactory result. Some confusion existed both on the side of the orthodontist and of the myofunctional therapist. Communication faltered, and the connection was broken. Many found that the quick dollar soon vanished, and the interest in myofunctional therapy faded. This crest, like most waves, seems to have rolled by only to be replaced by the next wave, which was surgical orthodontics. This procedure, too, is questionable. What will happen to some of the surgical cases as the muscles begin to take over again? Some cases have already relapsed, and often it seems that the third year after surgery is critical.

So, again we look to a cooperative effort by orthodontists and myofunctional therapists for a better procedure. It is my hope and belief that those who remain have "dug in" deeply enough to get beyond the cookbook approach. Things will continue to grow, but, I believe, at a slower and more even pace. Orthodontics and myofunctional therapy are a winning team.