Dynamic Chiropractic

Soft Tissue in Australia

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During October 9-10, 1999, the Chiropractic and Osteopathic College of Australasia (COCA) put on a two-day seminar recently called "Soft Tissue and Ancillary Techniques." I was honored to be invited to speak. Other speakers and their topics included: Alena Douchova,MD, from Prague (Dr. Lewit's work); Professor Chang-Zern Hong,MD (trigger point therapy); Terry Vardy,DO (strain-counterstrain technique); Kevin Ryan,DO (Bowen technique); Mr. Michael Arnel (rolfing); Mr. Gary Levy (Alexander technique); and Kit Laughlin (myofascial exercise therapy).

Besides initial presentations, each speaker ran two-hour workshops. The rest of this article will deal with significant statements about their works regarding soft tissue.

Dr. Hong defined a myofascial trigger point (MTrP) as "a highly localized and hyperirritable spot in a palpable taut band of skeletal muscle fibers."[1] He described its etiology as associated with other neuromusculoskeletal disorders and perpetuated or aggravated by some medical conditions. "The pathogenesis of MTrPs appears to be related to integrative mechanism in the spinal cord in response to the serious disturbance of the nerve ending and contractile mechanism at multiple dysfunctional endplates," he observed.

The basic unit of the MTrP contains a sensitive locus (sensory component), probably consisting of sensitized nerve fibers (nociceptors) which are widely distributed in the whole muscle and concentrated in the MTrP region. Recent electrophysiological studies suggest that these points are related to a spinal cord mechanism.

The active locus (motor component) is the site from which spontaneous electrical activity (SEA) can be recorded. SEA has abnormal endplate potential due to excessive release of acetylcholine, which may cause the formation of a taut band.

For MTrP therapy, Dr. Hong recommended some treatments: spray and stretch; deep pressure, in which you compress the MTrP firmly with two thumbs or fingers or stretch the underlying muscle fibers by moving toward two different ends following the direction of the muscle fibers; and gradual compression, in which you gently engage the barrier.

Dr. Hong recommended spinal manipulation as an adjunct to MTrP therapy. He stated that cervical manipulation reduced the pain threshold of myofascial trigger points in the upper trapezius.[2] He also recommended reciprocal inhibition, postisometric relaxation and needling/acupuncture as primary treatments for MTrPs. Other adjuncts to MTrP therapy included conditioning exercise (for fibromyalgia patients), thermotherapy and laser therapy. He felt that contract-relax, muscle energy and cryotherapy were not recommended for MTrP therapy.[1]

Dr. Douchova spoke on Dr. Karl Lewit's concepts and said that the role of soft tissue in dysfunction of the motor system, in particular that of skin and fascia, was largely underrated. "The motor system is embedded in soft tissue which has to follow its movement by shifting and stretching. Impairment of soft tissue mobility therefore can disturb motor function not merely mechanically,

but by reflex mechanisms."[1]

Dr. Douchova emphasized palpation as mandatory for diagnosis and treatment with regard to determining the barrier. She stated that a barrier is diagnosed when we palpate the first sign of tissue resistance. The normal barrier is elastic. Resistance increases gradually, and the barrier can be easily sprung. "The pathological barrier restricts free range and is abrupt. Treatment follows by engaging the barrier in the restricted direction and waiting for release, hardly changing the force used. This makes soft tissue treatment so specific that one can speak of soft tissue manipulation."[1]

I spoke on integrative fascial release and slightly differed with Lewit by stating that there were two barriers, an elastic barrier and a collagenous viscous barrier. This concept originated with Barnes.[3] The concept of two barriers necessitates the use of two separate types of soft tissue treatments: one directed at the elastic component and one directed at the collagenous (viscous) component.

Michael Arnel described rolfing[1] as a process aimed at organizing and ordering a human body by bringing muscles back to the place they belong in terms of their theoretical order. We position our bodies in a way that encourages a lack of structural support or strain, which will eventually overlay a structural pattern on top of our existing body structure. "The body needs to be balanced around a vertical line, which means balancing the right side against the left side, the front against the back, and most importantly, the innermost muscles against the outermost muscles."[1] Rolfers attempt to visualize the displaced pattern and work to free and relocate the fascial tissues of the body, i.e., to resettle muscular groupings back to where they belong, and where they will work most efficiently in the field of gravity.

Gary Levy stated that Alexander technique, among many other things, is based on bringing the so-called "primary relationship" between the head, neck and back under conscious control so that the entire range of human response patterns can be executed reliably, efficiently, dynamically and with minimal risk. Another name for Alexander technique is "neuromuscular skeletal repatterning."[1]

Kit Laughlin spoke on myofascial exercise therapy and feels that "most neck and back pain is experienced in the muscles associated with the spine. The pain is caused by excessive tension held in these muscles and is the result of a variety of causes, from structural imbalances to various aspects of lifestyle. These causes can be treated, except for a very small percentage of neck and back pain which can be dealt with successfully by surgery or drug therapy."[4] He advocates a conservative, exercise-based approach.

There were other very interesting soft tissue methods taught in the workshops. Unfortunately for me, I was unable to attend them as I conducted my workshop on integrative fascial release at the same time.

I want to thank Dr. John Reggars, the president of COCA, for inviting me to speak at the conference. Australia is a great country to visit and has much in common with not only the United States, but especially our own chiropractic profession.

References

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3. Hammer WI. *Functional Soft Tissue Examination & Treatment By Manual Methods: New Perspectives,* second ed. Gaithersburg, MD: Aspen, 1999.

4. Laughlin K. *Overcome Neck & Back Pain.* New York: Simon & Schuster, 1998.

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