Tennis Elbow as a Consequence of Muscle Imbalance:
A Rare Occurrence or One That You Just Never Thought About?

By Keith Innes

The last thing in the world that any doctor wants to read is another article on tennis elbow. I tend to agree, however over the last few years and approximately 200 tennis elbow cases later, an interesting observation has occurred and has prompted the question: "Is tennis elbow a symptom or victim of structures other than those of the common extensor mechanism (the classic overuse syndrome)?" We know that tennis elbow can be the result of a cervical spine subluxation complex.

We also are aware of the concepts of double crush, multiple crush, and reverse crush as possible cause of lateral epicondylitis. We are comfortable with the fact that distal radiocarpal, distal radioulnar, and ulnomeniscotriquetral joint dysfunction/subluxation can result in the patient presenting with the classic signs and symptoms of tennis elbow.

Perhaps the best way to present this is with a couple of brief case histories:

Case #1

A 40-year-old housewife with tennis elbow of 12 months duration. The tendinitis came on for no apparent reason during the late winter or early spring of 1993. The patient was examined by her family doctor and was given medication. When this failed to work she was sent to physical therapy and received approximately 10 months of ultrasound with and without cortisone cream, interferential current, helium neon laser therapy, magnetic therapy, weight training, stretches and finally discharged as a failure to respond. The patient was sent to an orthopedic surgeon who injected cortisone and almost put the patient into hospital with adverse reactions to the injection. The patient presented to my office and was examined with the following points being significant. Only the points pertinent to this article will be listed as most doctors are knowledgeable on the tests for Tennis Elbow. There was no question of the tennis elbow. Although the pain was at the tenoperiostial junction of the extensor carpi radialis brevis and the lateral epicondyle, this was improved immediately by using Dr. Vladimir Janda’s stretching technique for the common extensor group; therefore this could not possibly be the only or real cause of the patient’s pain.
Examination of the wrist joint was unremarkable as were the five joints responsible for supination/pronation actions. When the patient was asked to hyperextend the elbow and perform full supination as well, two events occurred simultaneously. The first was that the common extensor pain increased significantly and the second was that the common flexor tendon group was extremely painful to the stretch and the combined actions of hyperextension and supination were impossible to complete. The patient was treated with single bipolar medium frequency current in a linear pad placement (along the common flexor group). The pulse width was set at 300 microseconds with a pulse rate of greater than 100 hz. The currents were modulated both in frequency and amplitude. Following this the patient was instructed in the proper method to stretch the CFT group and iced. Home care instructions were given and the patient seen for a total of six treatments. On the seventh visit the patient was re-evaluated. The current was changed to a pulse width of 100 microseconds and a frequency of 50 hz and home care instructions given. The patient was treated a total of 10 times and discharged in a pain free state.

Case #2

A 52-year-old retired male with tennis elbow of three months duration. The tendinitis came on after playing squash and participating in cross country skiing. The patient went to his family physician who prescribed medication and physical therapy. The tendinitis at first seemed to go away but returned with a vengeance after attempting to ski again. The treatment at the physical therapy office was hot packs, ultrasound, and muscle stretching followed by massage. He was also given an elbow last to wear. After two months of this treatment he came to my office and was examined with the following results. Once again there was no way to deny the existence of the tennis elbow condition. There were no joint fixations in the extremity nor was the evidence to incriminate the spine. He was not able to supinate fully and when coupled with hyperextension it increased his lateral epicondylitis pain as well. The common flexor group was painful to digital palpation and resistant to all forms of stretch. The patient was treated as above and was asymptomatic after 21 days.

In both of the above examples nothing was done to the common extensor aspect of the arm as our original concept was that the tennis elbow was a function of the dominance of the common flexor groups. In other words, a classic case of muscle imbalance and the body’s natural defense working out of sync.

The point that needs to be made here is that if you understand how to use your modalities they can be an unbelievable adjunct to your practice. The various current modalities address variable components of the
subluxation complex which you can control by the correct selection of the pulse width/rate ratios.

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Editor’s Note: Dr. Innes’ next Extremities 1 (E1) seminar will be held May 21-22 in St. Louis, Missouri, and his next Full Spine (FS) seminar, which he will teach with Dr. Terry Elder, will be held June 4-5 in Vancouver. He is also teaching a Spine 1 (S1) seminar June 11-12 in New York. You may call 1-800-359-2289 to register.

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