Dynamic Chiropractic

PAIN RELIEF / PREVENTION

Management of Lateral Epicondylitis

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Epicondylitis is a pain syndrome involving pain and tenderness over the lateral epicondylar region of the elbow and is clinically most significant when involving the forearm in movement relative to wrist extension and supination. An important differential diagnosis to rule out is cubital tunnel syndrome involving the ulnar nerve and cervicobrachial syndromes. Gout and rheumatoid arthritis are also pathologies to rule out.

Current proposed etiologies include microscopic tears with related chronic inflammation of extensor/flexor tendons, microscopic tears of the respective muscle belly or at the radiohumeral joint. Synovium-covered, fibrofatty projections with inflammation and tissue redundancy may also be present. The site of tears may be significant enough clinically to be palpable by the examiner. In any event, inflammatory changes constitute the hallmark of clinical findings: pain, swelling, redness, heat with reduced function.

If the history of the lesion is early in its progression wrist/forearm immobilization with a cock-up splint to relieve tension on the wrist extensors, without elbow immobilization, may be sufficient to allow for healing to take place. If this is not effective, this author recommends phonophoresis at the site of the lesion, with 0.5 percent hydrocortisone ointment and 2.5 percent lidocaine ointment incorporated into the coupling medium, driving these agents into the tissue with low wattage pulsed ultrasonic energy, 0.75 W/cm 2 for 5 to 8 minutes. This author reminds the reader that ultrasonic energy is transmitted from the transducer housing in such a manner as to result in a conical energy pattern with the point of the cone at the most distant limit of that pattern. Since the therapeutic agents chosen for use in this clinicopathology function most effectively by being concentrated at the site of the inflammatory process, the center of the transducer housing should be positioned so as to direct the center of the conical beam directly at the site of the lesion. This will provide for a concentration of agents in the effected tissue in such a manner as to achieve maximum therapeutic benefit. If the "tear" is in the muscle belly, this procedure should be followed with splinting maintaining the wrist and forearm in the neutral position.

Although recent literature recommends the use of a firm elastic band placed around the forearm just distal to the cubital fossa and about two to three inches in width, this author has not found significant clinical value in its use.

If pain is decreased in intensity, but persists, an additional recommendation is the use of interferential current employing the Davis procedure. This may also enhance the rate of ATP production/release thereby enhancing the healing process.

If the initial examination revealed the presence of a tear at the origin of the extensor muscles and the periosteal junction or the radiohumeral ligament, manipulation may be of value. After fully extending the elbow with the forearm fully pronated, a quick thrust results in further pronation and extension of the arm. The resulting small manipulative thrust may complete the tear and allow for healing to begin. Following this procedure the humerus must be immobilized with the wrist in flexion. An Ilfeld elbow brace or a volar plaster splint may be used. If the tear is in the belly of the muscle, manipulation is contraindicated. Of course the patient must be restricted from use of the

arm, particularly any use which would require grasping with the hand and concomitant supination/pronation of the forearm until resolution of lesion is complete. Since grasping with supination/pronation of the forearm aggravates this lesion, any activity including tennis which requires the patient to perform a similar function with the upper extremity may serve to precipitate this pathology.

Symptoms will usually respond to a conservative regimen of treatment and rest. However, surgical division of the tendon or tenotomy or transplant may be necessary if conservative measures do not resolve the pathology. Having treated many such lesions in past years, this author recalls only a few which required surgical intervention and, not uncommonly, may be a result of poor patient compliance with therapeutic recommendations.

References

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