

Treatment of Lateral Epicondylalgia with Physiotherapy

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Introduction

Tennis elbow, also known as lateral epicondylalgia (LE), is the most prevalent chronic musculoskeletal pain disorder affecting the elbow, resulting in severe discomfort, disability, and lost productivity. Despite decades of study into therapies and the underlying causes of LE, it continues to be a difficult disease for physiotherapists and researchers to understand. The prevalence, burden, and risk factors related with LE are discussed in this topical overview. Diagnosis, assessment, and management concepts are also discussed. The latest data regarding therapy efficacy is also presented, as well as future research prospects.

Prevalence of lateral epicondylalgia: Approximately 40% of the population will have LE at some time in their lives. It most usually affects males and women between the ages of 35 and 54 [1]. The reported point prevalence of LE in the general population is between 1 and 3 percent and four to seven per 1000 patients attending general medical practitioners, respectively [2, 3]. Up to 50% of all tennis players suffer from elbow discomfort, with LE accounting for 75 to 80% of these complaints [1, 4].

Because LE most typically affects the dominant arm, especially while doing repeated activities, it's no surprise that the largest burden of LE is seen among manual workers, whose musculoskeletal upper limb injuries account for some of the most time away from work. LE affects up to 17% of employees in occupations that require highly repetitive manual operations, such as meat processing and industrial workers [5, 6]. This translates to a 219-day absence from work, with direct expenses of US\$8099 per individual. According to Workcover Queensland data, upper limb (shoulder and elbow) injuries account for 18% of all work-related claims from 2009 to 2013, which is the same as back injuries.

Manual workers who do repeated arm and wrist movements are more likely to develop LE, are more resistant to therapy, and have a worse prognosis. Office occupation, advanced age, female gender, past cigarette usage, and concomitant rotator cuff disease are all linked to LE. Given the lower thresholds for nociceptive withdrawal and increased temporal summation, one possible explanation for prolonged pain in LE is the existence of nervous system sensitisation. People with LE have been demonstrated to have generalized hyperalgesia (i.e., an increased pain response to diverse stimuli), which is linked to high pain ratings, reduced function, and a prolonged symptom duration.

The diagnosis of LE is made primarily on the patient's medical history and physical examination, with diagnostic imaging being performed only when a differential diagnosis is likely. The presence of tenderness above the lateral humeral epicondyle that may spread distally into the forearm is a common symptom of LE. Palpation, grasping, and resisted wrist and/or second or third finger extension worsen the discomfort. While LE is assumed to be caused by an overuse of the forearm extensor muscles, the discomfort may appear gradually with no obvious cause [7].

Conclusion

Assessment of pain and disability should be done at baseline to help with prognosis, because there is some evidence that persons who come with more pain and impairment are more likely to have continued

pain at 12 months. The Patient Rated Tennis Elbow Evaluation is a condition-specific questionnaire that comprises pain and function subscales that are combined to provide a single overall score ranging from 0 (no pain or impairment) to 100 (no pain or disability) (worst possible pain and disability). Clinically significant change is defined as a change of 11 points or 37% of the baseline score. Pain while grasping is the most prevalent functional restriction in LE, and this may be quantified as pain-free grip strength, which is a more sensitive to change than maximum grip strength. The patient is requested to hold a dynamometer until the first beginning of discomfort, while resting supine with the elbow in relaxed extension and the forearm pronated, and then the mean of three tests at 1-minute intervals is determined.

To aid in the differential diagnosis of intra-articular and ligamentous pathology, elbow, wrist, and forearm range of motion, stress testing of the medial and lateral collateral elbow ligaments, and specific tests for elbow instability (eg, Posterolateral Rotary Drawer Test, and Table Top Relocation Test) should be assessed. The clinician must be aware that there may be co-pathologies and symptoms overlap, especially in patients who present with signs of central sensitisation, which can be sensory or associated with neuropathic lesions such as entrapment of the posterior interosseous nerve as it passes between the two heads of the supinator muscle. Patients with entrapment of the posterior interosseous nerve may have discomfort on the dorsal aspect of the forearm and muscular weakness in the finger and thumb extensors, but no sensory loss.

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