

Outcomes following the conservative management of patients with non-radicular peripheral neuropathic pain.

Timothy Uhl, PhD¹ • Joseph Day, PhD¹ • Jason Willoughby, MS • Donald Pitts, MS¹ • Michelle McCallum, MS • Ryan Foister

¹Rehabilitation Sciences, University of Kentucky

Study design: Prospective cohort.

Introduction: There is limited evidence for conservative management of patients with non-radicular peripheral neuropathic pain (PNP) such as carpal tunnel syndrome and cubital tunnel syndrome.

Purpose: To investigate the effectiveness of a comprehensive treatment approach on pain and disability in patients with non-radicular PNP and to determine if improvements are maintained following the discontinuation of physical therapy.

Methods: Patients received a multi-modal therapeutic intervention with five components: Patient education, proximal stretching, distal stretching, scapular stabilization, and neural gliding that were progressed over the physical therapy treatment period. Outcome measures were the shortened version of the Disabilities of the Arm, Shoulder and Hand questionnaire (QDASH), Numeric Pain Rating Scale (NPRS), and grip strength. Follow-up data were collected 5 ± 2 months post-discharge.

Results: The mean number of physical therapy visits was 9.5 ± 5 visits. There was a significant improvement in the QDASH and mean pain ($p < .001$) over the course of treatment. There was no significant change in grip strength ($p > .13$). Follow-up data at 5 ± 2 months suggest that pain and disability scores are maintained following this treatment intervention ($p < .001$).

Conclusion: A comprehensive, conservative physical therapy treatment program has a positive and lasting effect on pain and disability scores in patients with non-radicular PNP.