



Comparison of immediate effects between multiple thoracic manipulation and single thoracic manipulation in chronic mechanical neck pain: a pilot study of randomized controlled trial

Phurichaya Werasirat¹, Rungthip Puntumethakul^{2*}, Uraiwon Chatchawan²,
Preeda Arayawichanon³

Abstract

Chronic mechanical neck pain is the most common type of neck pain that affects quality of life in the general population and results in consuming cost of management. Recently thoracic manipulation, single and multiple, have been widely used to relieve pain in chronic mechanical neck pain but no comparative study available. Thus, the purpose of this study was to compare immediate effects of multiple thoracic manipulation and single thoracic manipulation in chronic mechanical neck pain. Twenty subjects aged from 18 to 60 years participated in the study. The subjects were randomly allocated into two groups; multiple thoracic manipulation and single thoracic manipulation. Researcher 1 evaluated outcome measures; neck disability (NDI) and neck pain level at rest (VAS). Researcher 2 performed a session of either multiple or single thoracic manipulation on each subject. Outcomes measurements were assessed at the baseline, and at 24 hours follow-up. The results showed that there were no statistically significant differences in neck disability and neck pain level at rest between the two groups. However, changes within the group showed significant decrease in neck disability in both groups ($P < 0.05$ and $P < 0.05$, respectively). Neck pain level at rest after treatment in both groups showed significant decrease ($P < 0.01$ and $P < 0.01$, respectively). In conclusion, the results suggest that multiple thoracic manipulation and single thoracic manipulation yield no different results regarding neck disability and neck pain level at rest at 24-hour follow up in chronic mechanical neck pain patients.

Keywords: Chronic mechanical neck pain, Thoracic manipulation, Neck disability, Neck pain level at rest

¹Physical Therapy Program, Graduate School, ²Back, Neck and Other Joint Pain Research Group, Faculty of Associated Medical Sciences, ³Department of Rehabilitation Medicine, Faculty of Medicine, Khon Kaen University

*Corresponding author: (e-mail: rungthip45@yahoo.com)