

ADVERSE NEURAL TENSION VERSUS NEURAL GLIDING ON PAIN AND HAND GRIP IN PATIENTS WITH CERVICAL RADICULOPATHY

A thesis
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By
Ammar Ahmed Shahat Mohamed
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Supervisors

**Prof. DR. NAWAL ABD ELRAOUF ABOU-
SHADY**
Professor of Physical Therapy for Neurology
Faculty of Physical Therapy
Cairo University

Prof. DR. SAMEH MAHMOUD AHMED
Professor of neurology
Faculty of Medicine
Alexandria University

Dr. Khaled Hussein Yousef
Lecturer of Physical Therapy for Neurology
Faculty of Physical Therapy
Cairo University

Faculty of Physical Therapy
Cairo University
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Abstract

Background: Cervical Radiculopathy (CR) is a pathological condition of the cervical roots, which results in sensory disturbances, motor deficits and reflex changes according to the dermatomal distribution of the roots affected.

Purpose: to compare the therapeutic effect of adverse tension versus gliding neurodynamic mobilization on pain and hand grip strength in patients with cervical radiculopathy.

Methodology: forty-five patients complaining from cervical radiculopathy with pain along the course of median nerve from both genders, with age ranged from (35-55) years old, were randomly assigned to equal three groups: a study groups (I and II) and a control group. **Control group** who received only a selected conventional physical therapy program for 12 sessions every other day for 4 weeks, 3 sessions/week, each session for 60 minutes. **Study group (I)** received median nerve adverse tensioning neural mobilization technique in addition to the same selected physical therapy program (interferential current, infrared, stretching and strengthening exercises for cervical and shoulder muscles) in control group, **Study group (II)** received median nerve gliding neural mobilization technique in addition to the same selected physical therapy program as study group (I). All patients were evaluated with the Visual analogue scale (VAS) and the digital handheld dynamometer before and after treatment. The study was done in out-patient clinics of Faculty of physical therapy, Pharos University and Al Asafra-El Emam Hospital. **Results:** the study revealed that there is a significant improvement of study group (II) in pain reduction and hand grip strength, more than that improvement in study group (I) and control group as the p-value was (0.001). **Conclusion:** four weeks of median nerve gliding neural mobilization technique in addition to a selected physical therapy program had a superior effect rather than tensioning neural mobilization with the same program in treatment of patients suffering from cervical radiculopathy.

Key Words: cervical radiculopathy, neurodynamic techniques, visual analogue scale and digital handheld dynamometer.