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MESSIAH UNIVERSITY

DOCTOR OF PHYSICAL THERAPY PROGRAM

The mission of the Messiah University Doctor of Physical Therapy Program is to graduate ethical, compassionate, autonomous doctors of physical therapy who are competent to practice in diverse settings. Graduates will be life-long learners informed by evidence-based practice who exemplify the values of Messiah University and the physical therapy profession.

INTRODUCTION

- Cervical radiculopathy is a common musculoskeletal disorder resulting in pain and disability among patients seeking physical therapy services.
- Radicular pain arising from irritation of cervical spine nerve roots affects approximately one in every thousand individuals,[1,2] and the cost associated with diagnosis and treatment for this condition places a substantial burden on the healthcare system.
- The estimated non-operative cost to an average patient is $1,143 and is often accompanied by up to 10 months lost at work.[3]

PURPOSE

To compare cervical traction methods and determine the most effective method for treating cervical radiculopathy to reduce pain and disability in patients aged 20-70 years old.

METHODS

Figure 1: Depicts the process of article selection and elimination for this CAT.

Identification

Initial Search Results: *n*= 228 (*traction and cervical radiculopathy*)

Databases Searched: *n*= 2 (*PubMed & PEDro*)

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Screening

Number of Titles Screened: *n*=56

Number of Immediately Excluded Articles: *n*=74 (*Only Full Text Considered*)

Number of Full Text Articles Considered: *n*=56

Full Text Articles Excluded: *n*= 45

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Eligibility

Number of Studies that met Inclusion and Exclusion Criteria: *n*=11

(Inc: *Cervical Radiculopathy, Traction*)

(*Ex: post-operative, postoperative pain, trauma, neurological birth defects*)

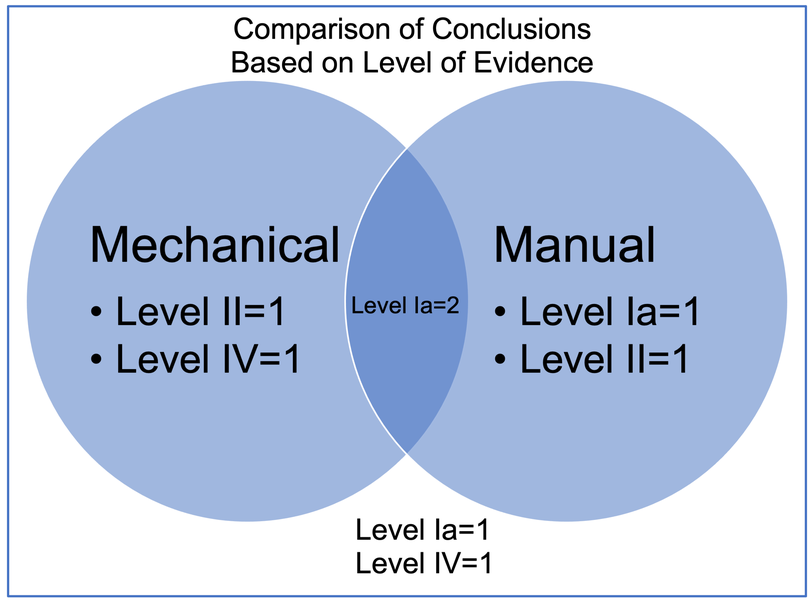
↓

Included

Number of Studies Used For Data Analysis: *n=11*

RESULTS

The results of our literature review were unable to determine a superior treatment technique and instead favored a multidisciplinary approach to conservative management of cervical radiculopathy. **Figure 2**: Depicts the results of this CAT. Out of ten articles, two supported mechanical traction, two supported manual traction, two demonstrated evidence for both manual and mechanical modalities, and two revealed no significant benefit when using traction as a sole therapeutic intervention.



CLINICAL RELEVANCE

- The inclusion of manual and/or mechanical traction in conjunction with a comprehensive multi-modal physical therapy treatment approach may assist clinicians in reducing symptoms in patients suffering from cervical radiculopathy.
- Mechanical traction may be preferred in some clinical cases to produce consistent force and increase inter-rater reliability.
- The generalizability of these findings may be limited due to the lack of diagnostic criteria for cervical radiculopathy.
- As with all physical therapy interventions, patients respond to interventions differently, and clinicians should apply their experience and best judgment when assessing the effectiveness of cervical traction in various patients.

CONCLUSION

- Both manual and mechanical traction are effective with reducing short-term pain and disability when used with multi-modal approach in patients with non-traumatic cervical radiculopathy.
- Prognosis for patients with acute neck pain with radicular symptoms is good when treated conservatively. Conservative management may include manual and/or mechanical modalities.
- The available literature does not favor manual nor mechanical traction modalities over the other.
- Neither method of traction is likely to be effective as a stand-alone treatment for cervical radiculopathy.
- Figures 3 and 4 below demonstrate the forms of traction investigated in this study.

Figure 3: Mechanical traction

Figure 4: Manual traction

REFERENCES

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