RESEARCH ARTICLE

CHRONIC CERVICAL RADICULOPATHY – EXERCISES AN EVIDENCE BASED REPORT

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ABSTRACT

Geriatric subjects with arm and neck pain can influence their daily functional means. Non operative means with exercises were cost effective and yields better results. Aims and objective of this research was to analyze the effects of specific exercises in chronic cervical radiculopathy using neck disability index

Materials and Methodology: 76 year old male with chronic cervical radiculopathy (Left) was treated with conservative means of specific exercises at Chennai during the period from 21.06.2017 to 10.08.2017 was treated for 6 weeks with a frequency of thrice a week. Results: Pre and Post neck disability index has shown a P value of <.05

Conclusion: Specific exercises therapy based on clinical evaluation with evidence provides an improved functional ways even with chronic ailments among geriatric subjects.

Key words: Radiculopathy, Transcutaneous, Electrical Nerve Stimulation, Laminectomy, Neck Disability Index, Visual Analogue Scale

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INTRODUCTION

• Cervical radiculopathy is a common disorder which can lead to significant clinical morbidity (Grabraitth et al., 2012) with an increasing average life expectancy is becoming more prevalent (Young et al., 2000) degenerative changes associated with ageing include disc herniation, osteophyte formation, hypertrophy of osteoarthritic facet joints and ligaments, this condition causing compression of cervical spinal cord and roots to present symptomatically as cervical radiculopathy (CR) (Bednarik et al., 2004). The symptoms of CR are neck and brachial radicular pain with or without motor weakness or paresthesia

• Surgical intervention is reserved for those patients who have in tractable pain or progressive neurological symptoms such as decompression of the spinal cord, Laminectomy without fusion (Fehlings 1994) anterior cervical discectomy (Faiser et al., 2007)

• Majority of patients with CR improve within 1-2 months with treatment including rest, cervical immobilization, NSAID, Muscle relaxants (Zennaro et al., 1998)

• Most frequently involved nerve roots are cervical 6 and 7 nerve roots which are caused by C5-C6, C6-C7 disc herniation or spondylisis (Hunt and Miller 1986), through they have neck pain, most frequent reason for seeking medical frequent reason for seeking medical assistance is neck pain (Daffner et al., 2003)

• In CR the role of physiotherapy including cervical traction (Bid et al., 2014) manipulation, therapeutic exercises and modalities (Nadler 2004)

• CR cause significant impairment economic and social functioning from prolonged pain (Coric et al., 2011)

Background Information

Mr. XX, Aged 76 years non diabetic, normotensive with sedentary life style and desk work using computers more than 4 hours daily

C/O

Left shoulder blade pain with occasional lower neck pain since 8 months with pain down the arm up to thumb

O/E

• Obliterated cervical lordosis, antverted scapula

• Left trapezitis

• Left supra spinal region tender ++

• Shoulder extreme ranges of all movements painful and restricted

• Cervical spine no tender regions, but movements were restricted with soft tissue tightness and posture

• Hand grip – bilateral good

• Scapular muscles were found to be weak such as rhomboids, Serratus anterior

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**DISCUSSION**

- 24 patients with FS in Turkey were studied for 3 weeks comparing electrotherapy modalities with hot pack, TENS, ultrasound with home exercises and found on VAS, DASH score with no significant difference between both groups but both groups subjects were treated with exercises (Yildiz et al., 2016)
- Omar et al., 2016 have in a systematic review with evidence recorded that an early reduction of pain, increase in ROM actively and quality of life with exercise modalities are better than using electrotherapy alone.
- Derya Celik et al., 2010 have in a RCT among 29 subjects in a 12 week study have compared TENS and NSAID with exercises alone, have found an improvedVAS score at 6 weeks and an improved and ROM by 12th week in exercise alone group than the first group
- RCT by Persson et al., 1997 have recorded in a 3 months study that surgery, physiotherapy, cervical caller to be equally effective on pain CR
- Surgery in CR is not always successful and may lead to complications (Olaison et al., 1992)
- Rai et al., 2013 have recorded among 30 subjects with CR, used TENS, cervical traction and exercises Mangalore, India with an improved VAS and neck disability index
- RCT by Young et al., 2009 among 81 subjects with CR, were randomly allotted in 2 groups, group I were treated with manual therapy, exercises and sham cervical traction
- for weekly five times therapy for 4 weeks found addition of cervical traction were of no benefit on pain and function in patients with CR,
but (Angela Tao et al., 2015) an Indian based study among CR with 30 patients where they were randomly allotted in two groups, with group I – received TENS and cervical neck exercises, Group – II received TENS, cervical neck exercises and intermittent cervical traction, at the end of 2nd and 4th week respectively group II subjects have shown greater result than group I, hence addition of cervical traction was reported to be more effective in the management of CR

- A multicentre report among 246 subjects with CR, 33% received surgery, where as 24-53% were managed with active and passive non operative means have shown equal outcome functionally Sampath et al., 1999, and have recorded CR with severe neurological deficits and serve pain can be managed successfully using a non operative approach (Spengler et al., 1990). This study subject with chronic CR have shown in 6 weeks with good prognosis as evidenced with these findings was treated only with specific exercises.
- Sal et al., 1989 have recorded that therapy intervention was to be based on the severity of patients symptoms and response to previous treatment

Conclusion

Specific protocol for management of cervical radiculopathy were not established with evidence. However this subject with good clinical outcome measure with an improved quality of life with specific exercises can further be validated by larger sample size and long duration follow up. Including control groups, involving other physical therapy variables such as cervical traction, TENS, interferential therapy and EMG are recommended further to strengthen findings of this original research

REFERENCES


