



COMPARING THE EFFECTIVENESS OF NERVE GLIDING EXERCISES VERSUS NECK ISOMETRIC EXERCISES COMBINED WITH TENS IN MANAGING CERVICAL SPONDYLOSIS

Physiotherapy

Dr. Shinam

Student SINPMS Badal, BFUHS

Dr. Damanjit Kaur Associate Professor at SINPMS, Badal, BFUHS

KEYWORDS

INTRODUCTION

The Cervical Spondylosis is a disease characterized by gradual degenerative alterations that impact the cervical spine's constituent parts (intervertebral discs, Luschka joints, facet joints, laminae and ligamenta flava). Because of the osteophytic formation that results from the progressive deterioration of spinal segments, it is described as "vertebral osteophytosis" subsequent to degenerative disc disorders. Such a condition can impact a person's ability to do any daily activity, including driving, walking, running, and sitting. Therefore, it can be labeled as a disabling disease. The current societal prevalence of spinal pain is approximately 66%, with neck pain accounting for.

This is only marginally less than the number of patients reporting low back pain.⁵ Cervical Radiculopathy (estimated yearly incidence: 83 instances per 100,000 persons) and myelopathy about 4 cases per 100,000 are far less common conditions. Men are more often than women to have spondylosis, which peaks in prevalence in both sexes between the ages of 40.

II. METHODOLOGY

The research and ethics committee of the University College of Physiotherapy (UCOP), Faridkot, accepted the study. 40 patients were screened.

The Inclusion Criteria was

1. Patients with age of 20 to 60 years.
2. Patients of both genders- males and females.
3. Subjects having bilaterally radiating pain to arms.
4. Patients with limited mobility of the cervical spine.
5. Patients have confirmed diagnosis of spondylosis on X-Ray.

Exclusion Criteria was

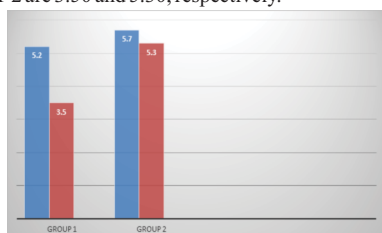
1. Patients having osteoporosis.
2. Patients having psychiatric illness.
3. Patients with any history of AIDS, cancer, inflammatory diseases, or autoimmune disorders.
4. Patients with head injury.
5. Patients having the clinical diagnosis of any fracture in the cervical spine.

Procedure

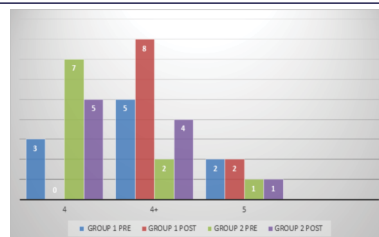
The study was conducted for a period of three times a week on alternate days for three weeks. Patients in both groups received 10 minutes of Transcutaneous Electrical Nerve Stimulation (TENS). Patients in Group 1 were provided with the nerve gliding exercises for the period of three times a week for about 3 weeks. Patients in Group 2 were given the neck isometrics. In this using manual resistance, the exercises were carried out with the patient seated.

III. RESULTS

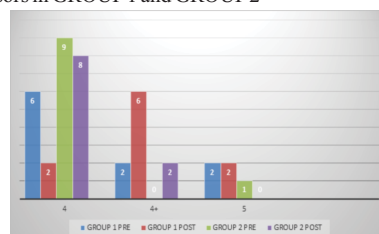
The mean difference VAS scale, Pre- test of GROUP 1 AND GROUP 2 are 5.20 and 5.70, respectively. In Post- test means values of Group 1 and GROUP 2 are 3.50 and 5.30, respectively.



Comparison of Pre- treatment and Post- treatment muscle strength of neck flexors in GROUP 1 and GROUP 2



Comparison of Pre- treatment and Post- treatment muscle strength of neck extensors in GROUP 1 and GROUP 2



Comparison of Pre- treatment and Post- treatment muscle strength of neck rotators in GROUP 1 and GROUP 2

Data Analysis

For data analysis, unpaired t- test and chi square test were conducted using SPSS to analyze subject characteristics. The VAS AND MMT values were seen at the end of the 3 weeks of the treatment sessions. A significance level of 0.05 was set for all analyses to determine statistical significance.

IV. DISCUSSION

The current study's findings indicate a statistically significant improvement in both groups. Additionally, the graphical representation demonstrates that the group that used TENS and neurogliding had a lower mean on the Visual Analogue Scale (VAS). In nerve gliding to isometric exercise, a notable difference will be observed. When treating chronic cervical spondylitis, in addition to TENS. Therefore, when used in conjunction with TENS, neurogliding is a more successful treatment for chronic cervical spondylosis.

CONCLUSION

This study concluded that the patients with Cervical Spondylosis can benefit from the physical therapy management, which includes the nerve gliding exercises and the transcutaneous electrical nerve stimulation. There is reduction in pain intensity and increase in muscle strength at the conclusion of a treatment session.

VI. REFERENCES

1. Sankar R. Cervical spondylosis -causes and remedial measures. 2020;(January 2015).
2. Lisa A Ferrara. The biomechanics of cervical spondylosis. 2011; 10.1155/493605.
3. Fejer R, Kyuik KO and Hartvigsen J. The prevalence of neck pain in the world population: a systemic critical review of literature. Eur Spine J. 2006; 15(6): 834-48.
4. Binder AI. Clinical Review Cervical spondylosis and neck pain. 2007;334(march).
5. Ippei Takagi, MD, Javed Khader Eliyas. Cervical Spondylosis: an update on pathophysiology, clinical manifestation, and management strategies. 2011; 10.1016/j.disamonth; 57:583-591.