

Activation of Deep Neck Muscles as an Adjunct to Vestibular Rehabilitation in Vertigo

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ABSTARCT

Introduction: Vestibular dysfunction is characterized by vertigo, imbalance causing disturbances, postural instability. Dizziness consists of Vertigo, light headedness, disorientation. Poor balance, postural issues due to provoked head movements are disabling for Vertigo patients having adverse effect on quality of life /health. Study was conducted to find effect of activation of deep neck muscles as adjunct to vestibular rehabilitation in vertigo.

Method: 20 subjects, 18-30 years diagnosed with Vertigo were selected and grouped into Experimental group and Control Group. Group A received exercises for deep neck muscle activation along with vestibular rehabilitation and group B received Vestibular rehabilitation. Session was 30 minutes /3 days per week /4 weeks. Outcome measures were Dizziness Handicap Inventory (DHI), Motion Sensivity Quotient (MSQ). Statistical analysis was done using unpaired t test.

Result: Within group - Mean \pm SD of DHI of group A was 37 ± 6.48 and 23.6 ± 8.09 . In DHI there was statistically extremely significant difference with $p=0.0003$ and $t=5.57$. Group B : mean \pm SD of DHI was 38.6 ± 3.27 and 23.6 ± 5 respectively , statistically not significant with $p=0.0786$ and $t=1.98$. Pre and Post Mean \pm SD of MSQ of Group A was 30.82 ± 5.75 and 9.72 ± 4.83 respectively. Post treatment extremely significant improvement was noted according to the p value- <0.0001 , t value 16.95 and Group B was 30.62 ± 7.36 and 25.28 ± 7.19 , statistically not significant with $p=0.075$ and $t=2.013$. Between groups - mean \pm SD DHI was 23.6 ± 8.09 and 35.2 ± 5 , which was statistically extremely significant with $p=0.0012$ and $t=3.85$ with decrease in disequilibrium, dizziness and limitations in daily activities. MSQ post intervention mean \pm SD was 9.72 ± 4.83 and 25.28 ± 7 , statistically extremely significant with $p<0.0001$ and $t=5.67$ with decrease in balance, functional mobility impairments.

Conclusion: Activation of deep neck muscles along with vestibular rehabilitation in vertigo had significant effect in improving postural stability with balance, functional mobility, reduced impact of symptoms on daily activities.

Keywords: Neck muscles, Vestibular rehabilitation, Vertigo

