

Effect of Passive Pectoralis Minor Stretching on Scapular Kinematics in Scapular Dyskinesia

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Abstract : Objective: To determine the effect of Passive pectoralis minor muscle stretching on scapular kinematics in individuals with scapular dyskinesia. Design: A randomized controlled study was conducted in Pune. The sample size was 30 subjects, which were randomly allocated to either Group A, the experimental group in which passive pectoralis minor stretch was given, or Group B, the control group, in which conventional exercises were given for 3 days a week over 4 weeks. Pre and Post treatment readings of the outcome measures, pectoralis minor length, scapular upward rotation, and lateral scapular slide test were recorded. Results: The results obtained prove a significant difference between pre and post mean values of pectoralis minor length in group A (pre 21.91, post 22.87) and in group B (pre 23.55 post 23.99); scapular upward rotation in group A (pre 49.95, post 50.61) and group B (pre 52.64, post 53.51); lateral scapular slide test at 0° abduction in group A (pre 6.613, post 6.14) and group B (pre 6.84, post 6.22); lateral scapular slide test at 45° abduction in group A (pre 7.14 and post 7.12) and group B (pre 8.18, post 7.53). With an inter-group analysis, it was found that mean of pectoralis minor length, scapular upward rotation, and LSST at 0° abduction in group A was significant than group B ($p < 0.05$). Conclusion: Passive pectoralis minor stretching along with conventional strengthening exercises was shown to be more effective in improving scapular kinematics among patients with scapular dyskinesia.

Keywords : scapulohumeral rhythm, scapular upward rotation, rounded shoulders, scapular strengthening

Conference Title : ICCTP 2022 : International Conference on Currents Trends in Physiotherapy

Conference Location : Singapore, Singapore

Conference Dates : January 07-08, 2022