The effect of serratus anterior strengthening exercises on shoulder flexion strength in competitive boxers with scapular dyskinesis

Oral Presentation

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Abstract

Introduction: In the literature, it has been stated that the strength of shoulder flexion in people with scapular dyskinesis is less than non-patients. The aim of the present study was to investigate the effect of 8 weeks serratus anterior muscle strengthening exercises on the shoulder flexion strength in competitive boxers with scapular dyskinesis.

Methods: The present study is a semi-experimental study that was performed on 20 boxers in Guilan province including 10 in the control group (age: 23.02±3.20 years; weight: 74.54±5.12 kg; height: 176.24±5.09 cm; sport history) and 10 in the experimental group (age: 24.01±5.02 years; weight: 75.14±6.17 kg; height: 175.28±4.07 cm). The boxers in the experimental group performed serratus anterior strengthening exercises for 8 weeks. Diagnosis and severity of scapular dyskinesis were measured by lateral scapular slide test and shoulder flexion strength using a manual dynamometer. All tests were performed in two stages of pre-test and post-test. Statistical analyses were performed using paired t-test and covariance at the significance level of 0.05.

Results: The results of this study showed that the numerical values of the shoulder flexion strength test in the experimental group had a significant increase compared to the control group. ($P \leq 0.05$) Also, according to the findings of the present study, it was observed that the numerical values of the lateral scapular slide test did not differ significantly in the experimental group compared to the control group ($P > 0.05$).

Conclusion: According to the results of the present study, it can be concluded that anterior serratus strengthening exercises had a significant effect on improving shoulder flexion strength in competitive boxers with scapular dyskinesis but did not have a significant effect on improving scapular dyskinesis. Therefore, trainers, athletes, and therapists can use the corrective exercises of the present study to reduce the symptoms related to dysfunction and improve athletic performance in boxers with scapular dyskinesis.

Keywords

Scapular Dyskinesis; Competitive Boxer; serratus anterior

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