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Upper Quarter Y-Balance Test Score of Patients with Shoulder Impingement Syndrome

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Objectives: The Upper Quarter Y Balance Test (UQYBT) is a reliable upper extremity closed kinetic chain test that can be used to assess unilateral upper extremity performance in a closed chain manner. However, UQYBT was tested only in recreational athletes and there are no studies investigating UQYBT scores in patients with various upper extremity musculoskeletal injuries. The purpose of this study was to examine differences in performance on the Upper Quarter Y Balance Test between patient with shoulder impingement syndrome and healthy controls.
Methods: A sample of fifteen patients with shoulder impingement syndrome (mean age 32.2±4.2 years) and fifteen healthy control (mean age 33.8±6.2 years) performed the UQYBT. UQYBT was collected bilaterally in three directions (medial, inferolateral, and superolateral). The maximum reach distance for each direction was normalized to upper extremity length (spinous process of C7 to tip of middle finger) and used for analysis
Results: A significant difference in performance between patients with shoulder impingement syndrome and healthy controls existed in the medial direction ($P<0.05$) and the inferolateral direction ($P<0.05$) where the healthy controls performed better. There was no significant difference in superolateral performance.
Conclusion: The results of this study suggest that patients with shoulder impingement syndrome will perform worse on the UQYBT in the medial and inferolateral directions than healthy controls. Thus, upper extremity closed kinetic chain exercises should be added in shoulder rehabilitation programs.

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