Abstract

Introduction. Low levels of activation of the serratus anterior (SA) and lower trapezius (LT) muscles are associated with kinematics dysfunctions of the scapular belt, for which the focus of functional recovery is neuromuscular reeducation. Hence, the proposed exercises should keep muscular activation at levels between 20% and 40% of the maximal voluntary contraction. Objectives. To compare the activation of SA and LT muscles in different exercises by using surface electromyography. Methods. Five exercises (modified crucifix, scaption, modified military press, pull over and low row) were executed by ten healthy subjects. Results. The highest SA activation was found during scaption, and the adequate activation occurred in the modified military press. The highest LT activation was found during scaption and low row exercises. Conclusions: The exercises that kept the recommended range of activation for neuromuscular reeducation were the military press, for the SA muscle, and the low row and scaption, for the LT muscle.

Keywords

Electromyography, Exercise, Physical Therapy Modalities, Scapula, Shoulder.