Abstract

**Objective**: The aim of this study was to determine the influence of selected motor relearning program (MRP) on the level of motor impairment of reaching pattern in stroke patients.

**Subjects and Methods**: Thirty stroke patients, their age ranged from 40 to 50 years, were randomly divided into two equal groups (study and control). The level of motor impairment of the upper limb was assessed before and after treatment through: (1) recording of electromyographic (EMG) amplitudes from calvicular head of pectoralis major, lateral head of triceps brachii and extensor carpi radialis longus & brevis muscles of the affected upper limb during reaching pattern. (2) Assessment of upper limb function through reaching performance scale (RPS). Both groups received physical therapy program. In addition, the study group received selected MRP for shoulder, elbow, wrist and hand. Treatment programs were given for two months every other day.

**Results**: The results showed significant increase in EMG amplitudes of the selected muscles and reaching performance scale in the study group.

**Conclusion**: Motor relearning program is effective in improving motor performance of reaching pattern in stroke patients.

**Key words**: Motor relearning, Reaching pattern, Electromyography, Stroke.