Functional Disability & Grip Strength of Cervical Radiculopathy Patients before & after Cervical Collar Use & Traditional Physiotherapy Treatment

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Abstract

The purpose of the study was to observe the effect of a cervical collar use and traditional physiotherapy treatments on functional disability and grip strength in cervical radiculopathy patients. A total of 30 patients (male =16; female=14) were selected as subjects and they were further divided into 2 groups. Each group comprising of 15 subjects (male=8; female=7).The results of the present study suggest that there was an improvement in the mean values of Numeric Pain Rating Scale, Grip Strength and Neck Disability Index scores after treatment in both groups. But it was found that an improvement was statistical significant more in an experimental group than non-experimental group. It was concluded that if the patients of cervical radiculopathy used cervical collar alongwith traditional physiotherapy treatment then there was early recovery from pain, grip strength, disability index in them.

Keywords: Cervical radiculopathy, Functional disability, Grip strength, Pain

Introduction

Dillin et al, (1986) described cervical radiculopathy as a common disorder characterized by neck pain radiating to the arm and fingers corresponding to the dermatome involved. The condition may result in neck pain however the primary symptoms reported in this population are often upper-extremity pain, numbness, and weakness, which often result in significant functional limitations and disability *(Benini, 1987).* Cervical radiculopathy typically manifests as pain radiating from the neck into the distribution of the affected root. The exact location and pattern of pain may vary widely and a classic dermatomal distribution of pain is not always present. Associated sensory, motor, and reflex disturbances may or may not be present. Because acute cervical radiculopathy generally has a self-limited clinical course, non surgical treatment is the appropriate initial approach for most patients. Surgical treatment may be considered when nonsurgical treatment fails and in the patient with a significant neurologic deficit *(Bush et al, 1997). Heckmann et al, (1999)* reported that an annual incidence of cervical radiculopathy was approximately 83 per 100,000 and there was an increased prevalence of in the fifth decade of life (203 per 100,000). Treatment strategies for patients with cervical radiculopathy range from conservative management to surgery *(Sampath et al, 1999).* More than 50% of patients with neck pain are referred to physical therapists and this population comprises approximately 25% of all patients seeking outpatient physical therapy for musculoskeletal conditions *(Borghouts et al, 1999).*

Generally orthopaedicians prescribe cervical collar for treatment of cervical radiculopathy. In the present study, the effect of cervical collar use and traditional