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RESEARCH ARTICLE

A STUDY ON THE EFFECTIVENESS OF MAITLAND MOBILIZATION IN PATIENTS WITH T4 SYNDROME

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ABSTRACT

Background: T4 syndrome is one of the commonest causes for upper back pain leading to pain and dysfunction. The condition being common in physically active persons, it can lead to substantial difficulties in performing their regular and simple activities. It can even affect them psychologically, leading to a depressed life.
Aim of the study: To emphasis the effect of maitl and mobilization in patients with T4
Objectives of the study
This study is aimed to find out the effect of maitl and mobilization in decreasing pain and functional ability by using VAS (visual analogue scale) and DASH (Disability of the arm shoulder and hand) scale respectively with T4 syndrome.
Methods: A quasi-Experimental study conducted in 30 samples. The subject were selected based on convenient sampling technique.
Results: Statistical analysis showed there is a significant difference between the pre and post test scores at $p<0.001$ in terms of functional ability and pain reduction in patients with T4 syndrome.
Conclusion: From this study it can be concluded that T4 syndrome can be effectively treated by the Maitland mobilization and there is an improvement in the thoracic mobility, and reduction in pain as concluded by the VAS and DASH scores. Thus it can be concluded that Maitland mobilization is an effective therapeutic option in the treatment of T4 syndrome.

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INTRODUCTION

T4 syndrome, also known as Upper Thoracic Syndrome refers to the pain in the upper back and is a much under-recognized or diagnosed condition.T4 syndrome affects three times as many as men, and is less common in the young and the old. Children are the more flexible, and older people don 't rotate so easily. The upper back (thoracic spine) consists of 12 thoracic vertebrae are connected to their neighbors with joints and discs which support body weight and enable the spine to flex. Near the upper back (thoracic spine) consists of 12 thoracic vertebrae named T1 to T12 from top to bottom. These vertebrae are connected to their neighbors with joints and discs which support body weight and enable the spine to flex. Near to these joints are nerves which can be damaged or irritated if a particular joint or disc is injured. Certain types of movement produce forces that stretch or compress the joints and disc at the T4 level. For example, bending, lifting, arching, or twisting movements- or even just poor posture.

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Traumatic, excessive, repetitive or prolonged force can cause injury and result in irritation or damage to the nerve root at T4. Segments T2 through T7 can also be involved. T4 syndrome produces a complex pattern of painful symptoms which may develop suddenly during the activity that causes the nerve damage, or appear gradually. Symptoms usually occur only on one side of the body, but may appear on both sides

MATERIALS AND METHODS

This study is aimed to find out the maitl and mobilization, in decreasing pain and functional ability by using VAS (visual analogue scale) and DASH (Disability of the arm shoulder and hand) scale respectively with T4 syndrome. A qusi experimental design is used to to find out the effect of maitl and mobilization. in decreasing pain and functional ability by using VAS (visual analogue scale) and DASH (Disability of the arm shoulder and hand) scale respectively with T4 syndrome. The study was conducted over a period of 9 months. A total of 30 subjects were included in the study. The inclusion criteria for the sudy was 25-40 years of age, Both male and female, At least 2 weeks duration of the current episode, Increased functional score with No traumatic history.

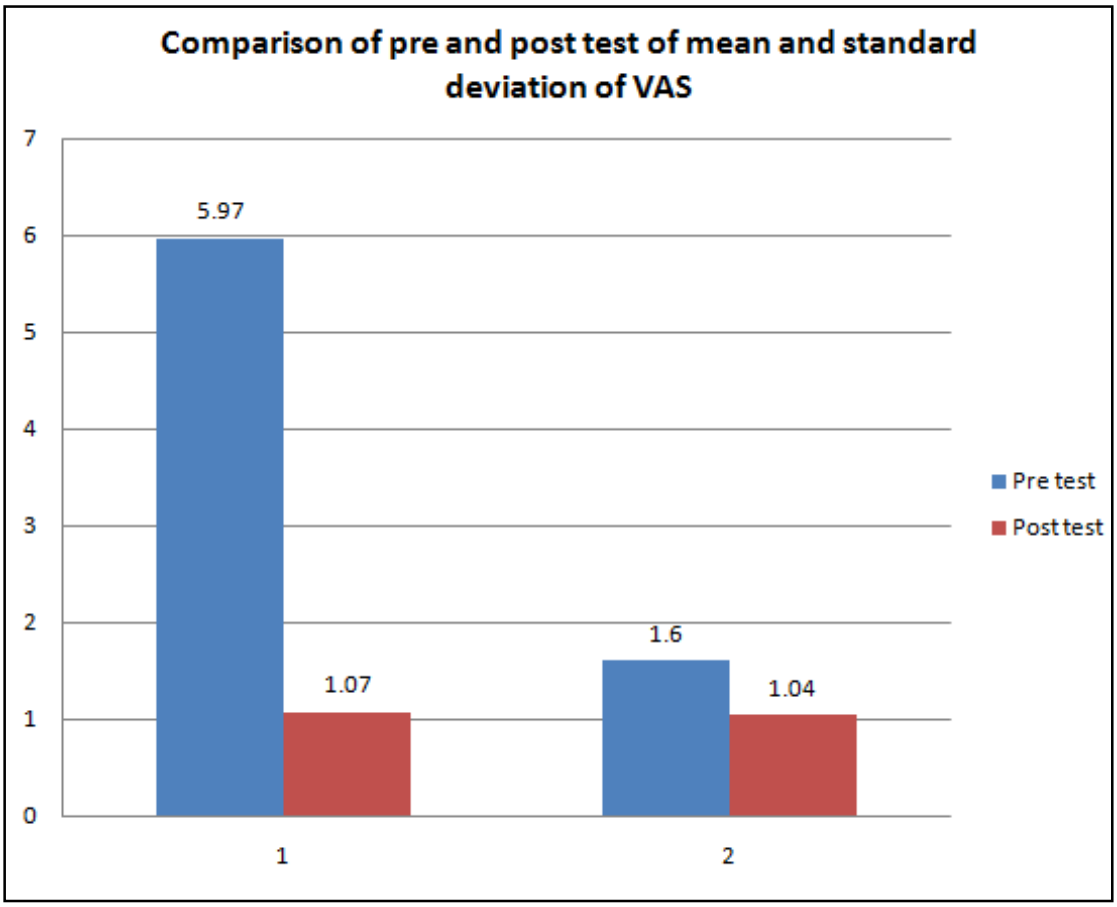

Figure 1.

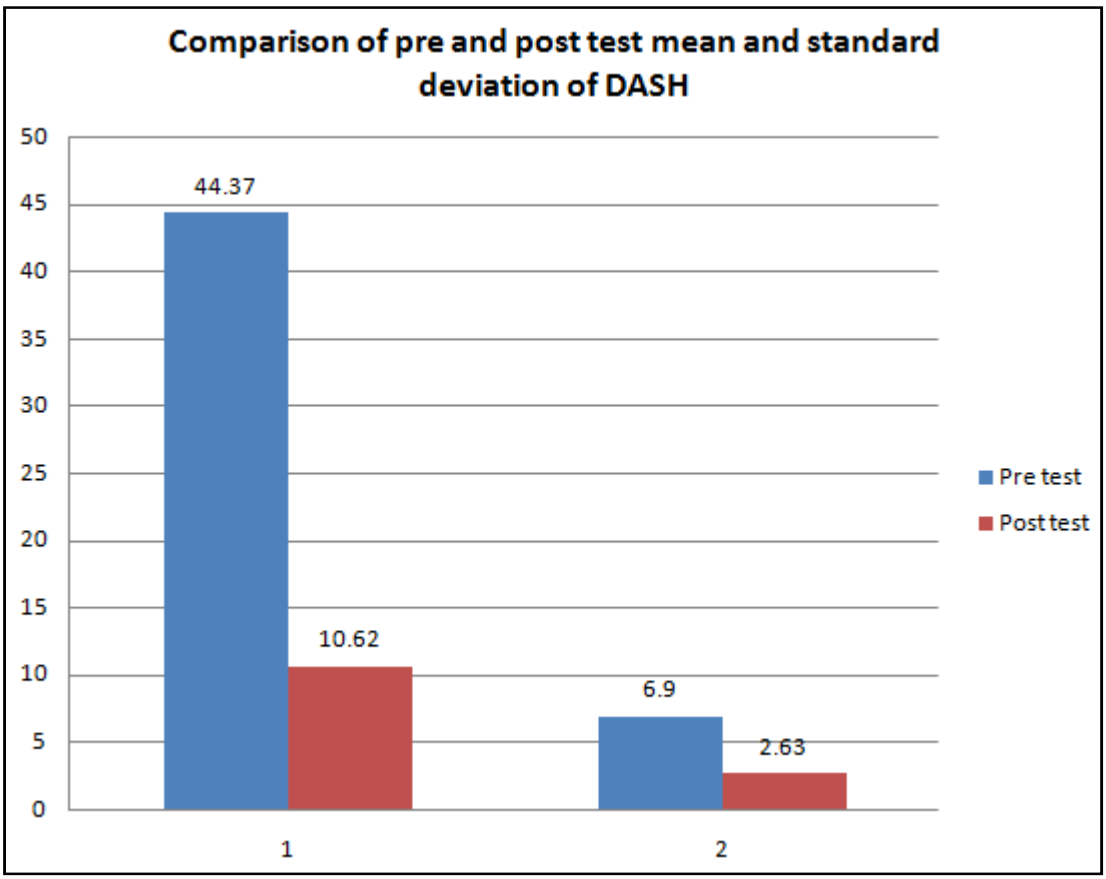

Figure 2.

The population who receive alternative treatment during the study for the current problem and also people suffering with TB spine, Thoracic outlet syndrome, Congenital abnormality in spine ,Cardio pulmonary diseases, Connective tissue disorders, Auto immune disorders, Cervical disc lesion, Vascular headaches, Peri-arthritis, Cervical Spondylosis were not included for the study. The technique chosen for the maitl and mobilization of the thoracic vertebra is Postero-Anterior central vertebral pressure. The patient lies prone either with his forehead resting on the backs of his hands or with his head comfortably turned to one side and his arms lying by his sides on the couch. Physiotherapists stand to one side of the patient approximately at waist level of the patient. The mobilization is carried over by an oscillating pressure in the spinous process produced by the body and transmitted through the arms to the thumbs, it is important that this pressure is applied by the body weight over the hands and not by a squeezing action. The fingers which are spread out over the patient back should not exert any pressure but act only as stabilizer for the thumbs. It is easy to dissipate the pressure and loss of effectiveness of the thumbs by faults use of the fingers. Elbows are kept slightly flexed and thumbs maintained in hyperextended of interphalangeal joints and slightly flexion of the metacarpophalangeal joints, the pressure can be transmitted to the pads of the thumbs through this series of strong springs. This springing action at the joints can readily be seen as the body weight is applied during the mobilizing. These techniques were applied thrice a week

RESULTS

The compare mean values, mean difference, standard deviation and paired t-values between pre versus post test values of test values of DASH in experimental group. The test values of pre test and post test of the experimental group was 22.68 at 0.001% which was greater than the tabulated t-values (1.76). The result showed that there was an improvement between pre was greater than the tabulated t-values (1.76). The result showed that there was an improvement between pre and post visual analogue scale for pain. The test values of pre test and post test of experimental group were 23.43 at 0.001% which values (Figure:1). The compare mean values, mean difference, standard deviation and paired t-values between pre versus post and post values (Figure :2). Statistical analysis showed there is a significant difference between the pre and post test scores at $p<0.001$ in terms of functional ability and pain reduction in patients with T4 syndrome.

Conclusion

From this study it can be concluded that T4 syndrome can be effectively treated by the Maitland mobilization and there is an improvement in the thoracic mobility, and reduction in pain as concluded by the VAS and DASH scores. Thus it can be concluded that Maitland mobilization is an effective therapeutic option in the treatment of T4 syndrome.

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