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COMPARISION BETWEEN THE EFFECT OF MCKENZIE NECK EXERCISE AND MET IN PATIENTS WITH MECHANICAL NECK PAIN

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ABSTRACT Mechanical neck pain commonly arises insidiously and is generally multifactorial origin, including one or more of the following :poor posture, anxiety, depression, neck strain and sporting or occupational activities.The McKenzie protocol has been commonly used in low back conditions may be employed in the treatment of mechanical neck pain .MET (Muscle Energy Technique) is a method of treatment that involves the voluntary contraction of a subject muscles in a precisely controlled direction, against a counter force provided by the operator. MET may be used to decrease pain, stretch tight muscles and fascia, reduce muscle tones, improve local circulations, strengthen weak musculature and mobilize joint restrictions. This study compared the effect of McKenzie neck exercise and MET in patients with mechanical neck pains . VAS and NDI used to see the effectiveness of treatment compare to pre intervention values. .This study concluded that both MET and McKenzie neck exercise have got beneficial effects in reducing pain and improving functional ability of patients with Mechanical neck pain.

KEYWORDS : Mechanical neck pain,McKenzie,MET

INTRODUCTION

Neck pain is one of the most common musculoskeletal disorders in the general population.Point prevalence ranges from 6% to 22% and up to 38% of the elderly population, while lifetime prevalence ranges from 14.2 % to 71%.Mechanical neck pain is a generalized neck and shoulder pain with mechanical characteristics, including symptoms provoked by maintained neck postures, neck movement, or by palpation of the cervical muscles. Upper crossed syndrome is facilitation of upper trapezius, levator , sternocleidomastoid, and pectoralis muscles as well as inhibition of the deep cervical flexors, lower trapezius, ana serratus anterior .These muscle imbalances and movement dysfunction may have a direct effect on joint surfaces, thus potentially leading to joint degeneration. In some cases, joint degeneration may be a direct source of pain, but the actual cause of pain has been often secondary to muscle imbalance.Muscle energy technique (MET) is a type of osteopathic manipulative technique to improve musculoskeletal function through mobilizing joints and stretching tight muscles and fascia, to reduce pain and to improve circulation and lymphatic flow.McKenzie method aims to centralize the pain or move the pain from spine. In this study we have compared the effect of McKenzie neck exercise and MET in patients with mechanical neck pain.

METHODOLOGY

STUDY DESIGN

It is a comparative study. Subjects with mechanical neck pain randomly assigned into Two groups A and B. Each group had 15 subjects.The group A received McKenzie treatment and the group B received MET.

SAMPLING TECHNIQUE: Subjects were selected according to the inclusion and exclusion criteria randomly.

ELIGIBILITY

INCLUSION CRITERIA

1.Age – 20-50 years
2. Nack pain on VAS – 4-8
3.Patients with neck pain (subacute or chronic)..

EXCLUSION CRITERIA

1. Signs of previous pathology (malignancy, Inflammatory disorder, infection).
2 . History of cervical spine surgery
3. Subjects with a history of severe trauma such as fracture
4.Congenital disorder of cervical spine
5. Pott's spine.

PROCEDURE

A approval for the study was obtained from the institutional ethical committee. 30 patients with mechanical neck pain were selected as per the inclusion and exclusion criteria. The subjects were randomly devided into 2 groups, Group A and group B. Group A received McKenzie neck exercises and group B received MET. Both the intervention was given for 4 weeks.

Mckenzie neck exercises were given for 4 sets of 10-15 repeatations with 1-2 minutes rest between each set and MET(post isometric contraction) was given to upper trapezius and levator muscles for 5 repeatations using 20% of maximal isometric contraction .Baseline measurements of pain intensity and functional ability of all the subjects were measured using VAS(Visual analogue scale) & NDI(Neck disability Index)

RESULTS

The data collected in the study were processed in IBM SPSS Statistics 23. Paired sample t-test was done to compare the pre and post intervention reading of pain and function.Independent sample t-test was done to compare the pre and post intervention reading of pain and function.The statistical significance set at 95% confidence interval with p value0.05 to be significant.The pre and post intervention comparison of the scores of VAS and NDI showed statistically significant difference for both the groups.The results showed statistically significant difference in the post intervention scores of NDI between the groups. Meanwhile, there was no statistically significant difference in the post-intervention VAS scores between the groups.

DISCUSSION

Neck pain is one of the most common musculoskeletal conditions. It is an important personal and social burden or pain full problem. Affecting 30% to 50% of adults in the general population and two out of every three individuals experiencing neck pain in their life time.In The previous study Verma shiv and Dr. Niraj kumar compare the effect of strengthening Neck exercise and McKenzie Neck exercise in neck pain. They found that The McKenzie method of treatment was more effective or successful than isometric strengthening exercise and hot pack group with a more rapid improvement in pain intensity during third and foruth. Bedekar Nilima , Ashok K Shyam and Parag Sancheti compare the effect of MET and staticstretching on pain and functional disability in patients with mechanical neck pain. They found that the MET method of treatment was more effective than static stretching in improving pain and functional status of the patients with mechanical pain.

Our result show that all the two techniques are effective in improving neck pain and functional ability. But NDI showed significant difference. NDI shows MET was more effective than McKenzie .The possible mechanism for the reduction in pain intensity in the MET group can be attributed to the hypoalgesic effects of MET.

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