Editorial

Physiotherapy and Occupational Therapy Journal
Volume 17 Number 1, January - March 2024
DOI: http://dx.doi.org/10.21088/potj.0974.5777.17124.1

Combined Effects of Physical Exercise, Ultrasound, and Kinesio-Tapping on the Pain Relief of Plantar Fasciitis Patients

Prof. Niraj Kumar

This was a comparative study which included 45 subjects with plantar fasciitis, who were randomly divided into three groups. Subjects in group I had 15 patients received ultrasound, passive stretching exercises and kineso taping while subjects in group II had 15 patients received laser, passive stretching exercises, while subjects in Group III had 15 patients received passive stretching only. Patients were evaluated at the 1st day, 5th day and on 10th day using VAS (visual analogue scale) for pain intensity Results: A statistically significant difference in improvement was noted within the groups and between the groups in terms of visual analogue (p0.05). The results of this study suggest that Ultrasound and passive stretching, when clubbed with Kinesio Taping method, do have significantly better effect on pain relief in plantar fasciitis especially from day one itself, when compared with other two groups. Pain reduced in all three groups but methods used in group one much more effective in reducing pain in plantar fasciitis patients

Thirty (30) subjects having radiological diagnosis of low back pain were selected according to the inclusion criteria. Decreasing pain and increasing ROM of the lumbar spine with the help of VAS and SCHOBER test. The subjects of group A received PNF stretching and core stabilization exercise and second group B received with mckenzie technique in low back pain. The post intervention data was compared with pre-intervention data and improvement of ROM is measured. PNF Stretching with core stabilization control exercise and mckenzie technique both shows improvement in low back pain but Mckenzie technique shows more improvement in centralizing the pain and ROM in low back pain after 6 weeks of therapy.

In this study total of 30 subjects were randomly assigned to two groups; group A (n=15) received McKenzie exercises and group B (n=15) received specific spine stabilization exercises. Subjects were evaluated before treatment and 4 weeks after treatment.Eachpatientcompletedaselfadministered Roland Morris disability Questionnaire (RMDQ) to assess subjective disability as well as Visual analogue scale for evaluation of pain Outcome Measures: RMDQ, VAS. The present study concluded that lumbar stabilization exercise and McKenzie exercise yielded significant improvement in patients with LBP. There is significant difference in lumbar stabilization and McKenzie exercise in the treatment of subjects with LBP. And lumbar stabilization exercise is slightly more beneficial than the McKenzie exercise.

Thirty (30) subjects were randomly allocated into two groups. Group A received bilateral arm training with conventional therapy and the subjects of group B received dual task training with conventional therapy to improve upper extremities function performance of ADL in stroke. The study was of 8 week, 5 days per week at department of physiotherapy in SMIH. Functional ability was evaluated with the help of UEFI and Fugl-Meyer score for paretic upper limb. The post intervention data was compared with pre-intervention data and improvement in the functional activity of upper extremity is measured. Bilateral arm training and dual task training along with conventional therapy both shows improvement in upper extremity function in stroke patients. But dual task training along with conventional therapy shows more improvement in reaching forward, grasping, manipulating objects and also improves other fine motor functions of hand after 8 weeks of therapy.

Ninety (95) subjects recruited between 60 years and above. These participants were recruited using purposive sampling. This Correlation analytical study consists of Timed Up and Go Test And Berg Balance Scale for assessing functional mobility and Balance (Static and Dynamic) respectively and data was analysed using the statistical package SPSS 22.0 (SPSS Inc.., Chicago, IL) at $p<0.05$. Result: The result of research suggests that there is a Statistically significant with moderate positive correlation ($p=0.002$*) observed between Q-angle with TUG (which measure dynamic balance). There is significantly weak positive ($p=0.095$) correlation observed between Q-angle with BBSS values (which measures both static and dynamic balance). In this study, the effect of Q angle has moderately positive

correlation with dynamic balance. A Q angle is weakly correlated with the static balance. That means quadriceps angle plays an important role in predicting injuries of lower extremity. This makes an important diagnostic tool during assessment of an individual, especially in Geriatric population.

A sample of 42 subjects within the age group of 40-60 years with sub-acute stroke were recruited in the study and were treated with Mirror therapy and conventional therapy. Pre and post intervention tests were assessed for Grip and release function of hand using Fugl-Meyer Assessment of the Upper Extremity (FMA-UE) and Wolf Motor Function Test (WMFT) measures. Results: The study of pre and post intervention data revealed that the Mirror group improved significantly in hand function. At the post-test, participants demonstrated considerable improvement in FMA-WH and WFMT-WH. FMA-UE rose from 38.57 to 48.14 (p=0.000), while WMFT from 2.38 to 4.8 (p=0.000). The preliminary data indicate that Mirror therapy can be a valuable intervention to enhance patient rehabilitation; it provides a simple and cost-efficient therapy for wrist and hand motor recovery and improves grip and release function in subacute stroke patients.

GIRD is a concept related to shoulder injury. It causes limitation in the range of motion. Shoulder joint plays an important role in throwing, serving or other activities related to shoulder. GIRD is an important pathology which should be considered for evaluation in sports palyers. Thus this clinical commentary speaks about this pathology GIRD. If the overhead athlete has alterations of glenohumeral motion, a comprehensive examination must be performed to determine the direction of motion that is limited and the specific tissues that cause the limitation. In overhead athletes a limitation of glenohumeral motion is required to perform motions such as throwing and serving. This loss of motion is normal and not pathologic. In extreme cases glenohumeral motion may be restricted to the point of actually causing pathology. Then, the appropriate intervention to address identified limitations can be chosen from those presented in this commentary, which are provided based upon a review of the evidence, when available.

***How to cite:** Niraj Kumar. Combined Effects of Physical Exercise, Ultrasound, and Kinesio-Tapping on the Pain Relief of Plantar Fasciitis Patients. Physio Ther Occup Ther J 2024;17(1): 7-8.