

# Tubular support reduces symptoms of knee oa compared to exercise

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Tubular support reduces symptoms of knee OA compared to exercise Tubular support reduces symptoms of knee OA compared to exercise Introduction Osteoarthritis (OA) continues to be a health care issue affecting an individual's functional status and performance. It is characterized by various levels of joint tenderness, pain, occasional effusion, lower R. O. M, inflammation, and crepitus. The rationale for using tubular bandages around the knee is to enable maximum coetaneous sensation support to joint position sense. This technique provides mechanical support to the knee and improves quality of life. In this study, twenty patients were used in the assessment. They were distributed randomly in control and experimental groups. The WOMAC scale was used to measure the outcome and assess stiffness, pain, and functionality ability. The evaluation was carried out initially, pre-exercise and at the end of the 1st, 3rd, and 5th week of training program for the chosen groups. The results showed that experimental group training enhanced joint proprioception after proprioceptive exercises and patients had shown signs of reduced symptoms of physical functional ability, stiffness, and pain, which offered relieve in performing ADL. Objectives of the assessment The study was aimed at comparing the effectiveness of using proprioceptive training, which means the use of weight bearing exercises with occupational therapy by giving tubular elastic bandages to the two groups of patients with knee osteoarthritis. Hypothesis Proprioceptive training together with tubular group therapy is effective in patients with knee OA. Method The comparative study was performed on 20 male subjects with OA knee joint aged 60 years and above. They were equally divided into two groups; the experimental and control group. Patients were requested to wear

tubular Elastic bandages in the course of the day, when performing daily activities, and during ambulatory that needs knee joint movements. When the patients rested, the Elastic bandages were removed. (Bellamy, 1998).

**Materials** The materials for the study were in the form of exercise protocol. Both the experimental and control groups were exposed to regular exercises and tubular elastic bandages depending on the sizes of their knee joints. Other materials included measuring tapes, elastic bandages, an electrogoniometer, weighted cuffs, and therabands.

**Procedure** Proprioception testing was initially done, then at the end of the 1st, 3rd, and 5th week of the exercise program, and progress recorded respectively. The electrogoniometer was used to test the proprioception. With patients in supine position, the electrogoniometer was put on the lateral element of the joint being tested and designed with visual signal in the form of a blue light. Immediately a patient would obtain the predetermined position of knee fixation, the blue light would give a visual signal concerning accurate knee flexation angle obtained (Hewitt et al, 2002).

**Data analysis** The experimental group had 10 patients given proprioceptive exercise together with application of tubular elastic bandages and occupational therapy. The control group had 10 patients with only occupational therapy and tubular elastic bandages on the knees. The two groups were evaluated for proprioception originally pre-exercise and then after the 1st, 3rd, 5th weeks post exercises. Subjects were to rate their perceived stiffness, physical ability, and pain using the WOMAC Scale. To analyze 20 male patients of control and experimental groups, the mean and standard deviation of all variables of OA patients was determined and then unpaired t-test applied. This was to

determine the comparative effects of the groups for WOMAC Scale and proprioception variables. Any values with p