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Effectiveness of therapeutic ultrasound and kinesio tape in treatment of tennis elbow

Objective: To investigate the effect of kinesio tape and therapeutic ultrasound on pain and hand grip strength associated with tennis elbow.

Material and Methods: Twenty male and female patients with age from 20-50 years suffering from lateral epicondylitis were participated in this study. All patients were randomly selected from orthopaedic surgeon. They were dividing into two groups. Group (A) (ultrasound and exercises group). Group (B) (kinesio tape and exercises group). The hand-held dynamometer was used to provide a detailed and objective measurement of wrist joint strength throughout its range of motion, the pressure being registered in kilogram (Kg) and Visual Analogue Scale (VAS) was used to record the degree of pain intensity.

Result: The result shows no significant difference between group A and B in their ages, weights, heights, and BMI where their t and P-values were (0.8, 0.43), (0.03, 0.97), (0.98, 0.33), and (0.9, 0.37) respectively. In Group A the significant differences in hand grip strength between pre and post-test which shows 31.59), compared to the pre-test (27.35), while in group B (33.17) compared to the pre-test (23.88). According the pain scale for group A and group B there are significant differences where the results were (2.50), compared to the pre-test (5.90) and (2.00), compared to the pre-test (7.30), retrospectively.

Conclusions: The treatment was improvement between both groups. However, the kinesio tape is better than therapeutic ultrasound.

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TRIA-MF protocol as an innovative tool in the comprehensive treatment and outcome evaluation of lower limb amputees before and after prosthesis use

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Background: A structured multidisciplinary team is very important during every phase of the amputation process and a good communicative team guarantees a greater tranquility for the patient, thanks to more homogenous information, that is already discussed between the clinicians.

Aim: The aim of this study was to define the efficacy and outcome value of an innovative procedure tool (TRIA-MF protocol) in the treatment of lower limb amputees before and after prosthesis use with the purpose to quantify the quality of the procedure and its economic impact on the clinical patients' recovery.

Setting: A rehabilitation institute for the treatment of neurological and orthopaedic gait disorders.

Methods: 12 patients (4 women and 8 males) subjected to lower limb amputation and admitted according to the principles of inclusion criteria of the TRIA-MF protocol at the Rehabilitation Department of the Clinical Institute Città di Brescia were recruited in this study. All patients were included in an integrated and task-specific management protocol of the amputee, which allowed to follow the rehabilitation process from amputation to the final restoration, for a period of 6 months for each patient. Patients were evaluated 5 times during the study, collecting their degree of pain (VAS), their independence profile (Barthel Index) and the cirtometry of their amputation stump. Data on the duration of their admission to the rehabilitation unit, the inter-time between the amputation and acquisition of the temporary prosthesis, and between temporary prosthesis acquisition and the final prosthesis acquisition were also reported.

Results: Patients of our sample, at the end of their hospitalization, highlight a significant modification of the temporal data at 1 month and 6 months from their hospital discharge. A statistical significant increase of the Barthel Index value was observed in all patients recruited in this study proceeding from time T0 to time T4; in the same way, a statistical significant decrease of the VAS scale was observed in all patients recruited proceeding from time T0 to time T4; the cirtometry of the amputation stump (expressed in cm) showed a statistical significant decrease in all patients recruited proceeding from time T0 to time T4. We haven't observed a statistical significant correlation between the duration of the rehabilitative hospitalization and our clinical data; no statistical significant correlation was observed between the amputation stump cirtometry time-related modification and our intertime data.

Conclusions: The protocol was found to be a clear and relevant tool with the definition of the operational profile for each single professional figure involved; it could also be considered as an optimal tool for coding the management and evaluation of the effectiveness of amputee treatment, with a related high reproducibility, sensitivity and specificity profile. In line with the literature, the TRIA-MF protocol has allowed us not to exceed a period of hospitalization in rehabilitation units of more than 23 days, thus showing that it is an excellent tool for optimizing the management costs of the amputee over time.