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АСОЦИАЦИЯ ПО ФИЗИКАЛНА МЕДИЦИНА И РЕХАБИЛИТАЦИЯ**

ФИЗИКАЛНА МЕДИЦИНА РЕХАБИЛИТАЦИЯ ЗДРАВЕ

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REHABILITATION IN PATIENTS UNDERGOING LUNG TRANSPLANTATION

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ABSTRACT

Lung transplantation is the latest therapeutic option in patients with chronic pulmonary diseases, with the primary goal being not only survival but also the opportunity for a fulfilling life style. An important approach to achieving this is the rehabilitation at all stages of recovery and long-term.

A review of worldwide clinical experience based on evidence of pulmonary transplant rehabilitation has been made. A practical approach to functional assessment of the patient is considered, assessing aerobic capacity, muscle function, functional physical capacity and physical activity of transplant candidates and recipients. The methods used for pre-operative rehabilitation, rehabilitation in the early and late post-transplant period, with particular emphasis on respiratory rehabilitation, are presented.

The rehabilitation of lung transplant candidates and recipients plays an important role in optimizing the condition before transplantation, facilitating the recovery of function after transplantation and improving the quality of life.

Key words: *lung transplantation, pulmonary rehabilitation, quality of life*

ULTRASOUND EXAMINATION IN CARPAL TUNNEL SYNDROME

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ABSTRACT

Carpal tunnel syndrome (CTS) is essentially compression or tension of the median nerve at the wrist and is one of the most common compression mononeuropathies. Electromyography (EMG) is recognized as the gold standard for verifying diagnosis. In recent years, the benefits of ultrasound diagnostics in clinical practice have been proven, especially in providing dynamic monitoring of the patient's condition. Furthermore, ultrasonography (US) is an affordable and safe way for an investigation and confirmation of diagnosis in patients with wrist pain. It should be noted that US detects the change from the initial state significantly faster than the EMG. The ultrasonographic method demonstrates excellent results in verifying diagnosis of CTS, based only on symptoms and physical examination.

Key words: *carpal tunnel syndrome, anatomical variations, ultrasonography, electromyography*

IS THERE OPTIMAL FREQUENCY, DURATION AND INTENSITY OF THE KINESITHERAPY IN CHILDREN WITH ASTHMA?

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ABSTRACT

Aim: To find out if there is optimal frequency, duration and intensity of kinesitherapy in the treatment and prophylaxis of children with asthma, due to lack of consensus in the literature about these questions.

Material and Methods: 12 children (age 9.67 ± 2.5 years) with asthma were treated for 10 days. Kinesitherapy (breathing exercises and percussive drainage) was included in the standard pharmacotherapeutic treatment. It was performed under supervision by a rehabilitator, training the parents and their children in self-performance of the kinesitherapy during the course of treatment and at home for one year. After one year, the same 10-day treatment course was repeated. Standard spirometry was recorded at the beginning and at the end of each 10-day treatment course. In addition, the frequency, duration and intensity of the kinesitherapy were recorded at the end of each treatment course. Analysis of variances (MANOVA) with Bonferroni's multiple comparison post-hoc tests, as well as Pearson correlation analysis with post hoc multiple linear regression tests, were used in the statistical analysis.

Results: The results showed a statistically significant improvement after the first 10-day treatment course versus the beginning ($P < 0.05$), as well as after the second 10-day treatment course versus before it ($P < 0.05$). There was a significant improvement after the second 10-day treatment course versus after the first one ($P < 0.05$). There was no correlation between the normalised spirometric parameters and the duration of the kinesitherapy ($P > 0.05$). There was a statistically significant three dimensional correlation between the normalised spirometric parameters, frequency and intensity of the kinesitherapy ($P < 0.05$). Higher frequency and higher intensity of the kinesitherapy correlated with better normalised spirometric parameters ($P < 0.05$). The frequency of the kinesitherapy showed higher statistical power versus the intensity of the kinesitherapy ($P < 0.05$).

Conclusion: As the frequency and intensity of the kinesitherapy were increasing, the objective condition was improving. The statistical power of the frequency of the kinesitherapy was higher than that of the intensity of the kinesitherapy. It does not matter how long the kinesitherapy is, but how frequent and intense it is.

Key words: asthma in childhood; frequency, intensity and duration of kinesitherapy

PREOPERATIVE EDUCATION AND RECOVERY AFTER HIP AND KNEE REPLACEMENT

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ABSTRACT

The purpose of this study is to analyze the effect of preoperative patient education on early postoperative recovery after knee and hip replacement.

***Material and Method:** For the period from March 2018 to July 2019 64 patients treated at the Clinic of Orthopedics and Traumatology were monitored. Physical and functional examinations, Visual Analog Fatigue Scale (VAS-F), Lower Extremity Functional Scale (LEFS), and Hospital Anxiety and Depression Scale (HADS) were used to evaluate the patients' condition.*

***Results:** The patients had a mean age of 67 ± 10.7 years (40 women and 24 men). 9 of them underwent knee arthroplasty, and 55 underwent hip arthroplasty. The patients were randomized into two groups: 38 of them received routine care, while 26 of them also received preoperative education for 3.6 ± 1.9 days on average. All patients were discharged with statistically significant improvement in their physical and mental condition. No significant difference was found between the two groups. In the group that received preoperative education, the day of first upright mobilization was performed earlier (with $p < 0.01$) compared to the control group.*

***Conclusion:** Pre-arthroplasty education is a recommended stage in the rehabilitation. It has a positive effect on patients' mental state and their treatment satisfaction.*

***Key words:** arthroplasty, early rehabilitation, pre-arthroplasty education*

