

Research Report Poster Display

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EVALUATION OF FUNCTIONAL CAPACITY AND RESPIRATORY MUSCLE STRENGTH BEFORE AND AFTER REHABILITATION PROGRAM

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Purpose: Improving quality of life and survival of patients undergoing liver transplantation through a physical rehabilitation program.

Relevance: Scientific support to proceeding physical therapy in liver transplant patients.

Participants: Were included in the study 11 individuals, who underwent surgery for liver transplantation for decompensated liver disease, intentionally, all following inclusion criteria. All individuals were carefully undergoing physical therapy evaluation before and after rehabilitation and obeyed the same number of sessions proposed.

Methods: The research is a longitudinal, controlled, prospective and observational, held from January to July 2010. The research was approved by the Ethics Committee under the registration No. 166/09. Inclusion criteria were: (1) individuals older than 18 years, (2) have been subjected only to liver transplantation, (3) Being able to perform the physical rehabilitation program proposed, (4) Realized and accepted the IC participate. Individuals were placed in a rehabilitation program after hospital discharge. Two evaluations were performed, which took place before and after the rehabilitation. Were evaluated respiratory muscle strength (MIP and MEP, expressed in cmH₂O) through the manometer, according to the standards of the Guidelines for Pulmonary Function Tests (Souza, 2002) and functional capacity test through the six minute walk test (6MWT, expressed in m) following the standards of the American Thoracic Society (ATS, 2002). The rehabilitation sessions were held three times a week, with an average of 40 minutes. The rehabilitation protocol consisted of exercise for upper limb muscle strength with dumbbell up to 2kg and physical reconditioning cycle ergometer. During the sessions were monitored heart rate, respiratory rate, blood pressure, oxygen saturation by pulse oximetry and perceived fatigue by Borg scale modified. All patients underwent ten sessions of rehabilitation.

Analysis: For statistical analysis was used qualitative percentage, average and standard deviation, Student t Test for paired sample and Pearson Correlation for not paired sample with a significance level of 5% ($p < 0.05$).

Results: The study included 11 individuals, 09 males (81%), aged 48.36 (± 12.31). The score of disease severity MELD was 20.63 (± 6.62). The MIP pre-rehabilitation was -45 (± 21.67) and post rehabilitation -55.45 (± 19.03), were not significant. MEP pre rehabilitation was 63.18 (± 21.59) and after 73.63 (± 14.33) was also not significant. The distance (SD) pre-rehabilitation was 377.28 (± 84.88) and post rehabilitation 454.73 (± 96.37) but was not significant ($p = 0.059$). There was no correlation between the variables.

Conclusions: Respiratory muscle strength and functional capacity improved after rehabilitation, which may reflect in a better quality of life, lower risk of complications and greater longevity for the patient undergoing liver transplantation.

Implications: None.

Key-words: 1. . Physiotherapy 2. . Liver Transplantation 3. Rehabilitation.

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Ethics approval: Approved by the Ethics Committee under the registration No. 166/09.

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