

## **EFFECT OF PHYSICAL THERAPY ON MUSCLE STRENGTH, RESPIRATORY MUSCLES AND FUNCTIONAL PARAMETERS IN PATIENTS WITH INTENSIVE CARE UNIT-ACQUIRED WEAKNESS**

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The aim of this study was to evaluate the effect of an intensive physical therapy protocol in patients who contract 'intensive care unit-acquired weakness' (ICUAW), in terms of muscle strength, breathing and functional indices.

This was a prospective, single-blinded study in a general hospital intensive care unit (ICU). Patients who required mechanical ventilation longer than 48 h and who were expected to remain mechanically ventilated for at least another 48 h were randomly divided into two intervention groups: group I (n = 9) - the routine care group, received physical therapy according to our daily custom protocol; and group II (n = 9) - the intensive treatment group, were treated by the same protocol twice a day. The main outcome measures included the Medical Research Council (MRC) physical strength examination, maximal inspiratory pressure (MIP), hand grip dynamometer and sitting balance test.

Significant strength improvement from first (T1) to second (T2) measurements was demonstrated for variables MIP and MRC physical strength examination in favor of the intensive treatment group ( $P < 0.05$ ). The intensive treatment group also required shorter intensive care length of stay than the routine care group ( $P = 0.043$ ).

It is possible that an intensive therapy protocol may facilitate the initial recovery process in patients who suffer from ICUAW