

REHABILITATION MANAGEMENT OF INTENSIVE CARE UNIT-ACQUIRED WEAKNESS

**Milkica Glogovac Kosanović¹, Tatjana Bućma¹, Tanja Stanivuković¹,
Igor Sladojević², Nedžama Begović-Špago³**

¹ Institute for Physical Medicine, Rehabilitation and Orthopedic Surgery "Dr Miroslav Zotović", Bosnia and Herzegovina

² Faculty of medicine, University of Banja Luka, Bosnia and Herzegovina

³ Cantonal hospital dr Safet Mujić, Bosnia and Herzegovina

e-mail: milkica.glogovac.k@gmail.com

Background and Aims

Intensive Care Unit-Acquired Weakness (ICU-AW) is a clinically detected weakness in critically ill patients who do not have a primary neuromuscular disorder, and it occurs due to the critical illness or its treatment. It encompasses three separate syndromes: critical illness myopathy, critical illness polyneuropathy and critical illness polyneuromyopathy. This complication develops in 25-45% of critically ill patients admitted to intensive care units and can lead to severe and permanent functional impairment. At the moment, there's no specific treatment to cure ICU-AW, but only preventive and substantiating measures that include aggressive treatment of sepsis, lowering of the dosages and duration of therapy with neuromuscular blockers and corticosteroids, rehabilitation, adequate positioning, nutritional interventions and usage of immunoglobulins. The goal of the research is to determine the importance of rehabilitation in the functional recovery of patients with ICU-AW.

Methods

The research featured 20 patients of both sexes over the age of 18 who were sent to stationary rehabilitation after their treatment at the Intensive Care Clinic at the Clinical Center of Republic of Srpska, where they were connected to mechanical ventilation. As a result, ICU-AW was developed. At the beginning and at the end of the rehabilitation process, they were tested according to the functional mobility test and the Barthel index. Rehabilitation included a specific kinesitherapy program, occupational therapy, electrical stimulation, pulmonary rehabilitation and robotically assisted rehabilitation.

Results

There was a highly statistical and significant increase in functional mobility test values from the moment of admission ($M=0,2$, $SD=0,2$) to discharge ($M=2,85$, $SD=1,927$, $t(19)=-6,239$; $p=0,000$). The same was detected for values of the Barthel index, from the moment of admission ($M=26,7$, $SD=16,013$) to discharge ($M=66,8$, $SD=25,354$, $t(19)=-8,593$; $p=0,000$).

Conclusion

The results showed a significant role of organized rehabilitation in improving the functional status of patients with ICU-AW, which also leads to improving their quality of life.

Keywords: critical illness, myopathy, polyneuropathy, rehabilitation