Post-critical care rehabilitation (SFAR-SOFMER)

Oral communications

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Why and how not to stay at the bottom of the bed in the intensive care unit? (the intensivist's perspective)
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Thirty to fifty percent of critically ill patients develop a polyneuromyopathy while in the Intensive Care Unit (ICU), also called “ICU acquired weakness”. This condition is associated with prolonged duration of mechanical ventilation, prolonged ICU and hospital lengths of stay, as well as excess hospital and long-term mortalities. In addition to pathophysiological risk factors associated with the primary disease (shock, multiple organ dysfunction syndrome, sepsis, oxidative stress, hyperglycemia...), immobilization determined by the use of a deep or prolonged sedation is actually the main iatrogenic risk factor. Strategies to early interrupt sedation in critically ill patients (passive awakening) associated with early active mobilization strategies (active awakening) have proved to be effective to reduce patients’ functional disability at hospital discharge. This communication reports on the practical feasibility of such a strategy in the intensivist's perspective, resuscitation-rehabilitation being more and more intricate. Interconnection between ICU, rehabilitation and physical therapy teams is discussed. This is an important facilitator for a successful implementation of early active mobilization in the ICU setting.

Keywords Intensive Care Unit; ICU acquired weakness; Polyneuromyopathy; Sedation; Analgesia; Delirium; Early active mobilization

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Tolerance of very early exercise in intensive care unit based on a decisional algorithm: A pilot feasibility study
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Objective Practice guidelines recommend early physical therapy in intensive care unit (ICU) [1]. We aimed to evaluate the tolerance of an early exercise program in ICU based on a decisional algorithm issued from the evidence based data and an experts opinion.

Methods In this pilot feasibility study, main outcome collected before and after exercise session is discomfort on a Visual Analogue Scale (VASdiscomfort). Secondary outcomes are muscle strength (Medical Research Council scale), length of stay on ICU, mortality in ICU and place for discharge destination. The standardized program includes an upper and lower limbs (LL) training (cycloergometer for LL and manual range of motion) and a functional training, delivered by a physical therapist. The progression is based on fixed VASdiscomfort threshold at 7/10 during exercise and on algorithm constructed from a systematic review of literature [2], using the Consort recommendations and the PEDro grid.

Results Thirty patients were recruited, a total of 150 training sessions were made daily and overall tolerance of an early exercise program in ICU, based from an algorithm applied to the ICU patients is good. We confirm the feasibility of such programs and the very few benign adverse events rate. We note a low incidence of polyneuromyopathy diagnosis.

Conclusion Tolerance of an early exercise program in ICU based from an algorithm is good, but these preliminary results remain to be confirmed in a prospective randomized controlled trial. However, the use of this decisional algorithm should be encouraged to standardize and to initiate progressively very early exercise programs in ICU.