

ROLE OF PHYSIOTHERAPY FOR ADULT PATIENTS WITH CRITICAL ILLNESS

Gregoretta C.

Turin, Italy

Abstracts

Long-term complications of critical illness include intensive care unit (ICU)-acquired weakness and neuropsychiatric disease. Immobilisation secondary to sedation might potentiate these problems. Critical illness can last from hours to months, depending on the underlying pathophysiology and response to treatment. It carries high morbidity and mortality rates, and the associated care is a major determinant of healthcare costs. The evolution of intensive care medicine and integrated team management has greatly improved the survival of critically ill patients. In view of the high costs associated with ICU, every attempt should continue to be made to prevent complications and appropriately treat the primary underlying pathophysiology to minimize length of stay in ICU. There are common complications particularly associated with a prolonged ICU stay, including deconditioning, muscle weakness, dyspnoea, depression and anxiety, and reduced health-related quality of life. Chronic critical illness is associated with prolonged immobility and intensive care unit (ICU) stay and accounts for 5–10% of ICU stays, a proportion that appears to be increasing. Because of these detrimental sequelae of long-term bed rest, there is a need for rehabilitation throughout the critical illness and thereafter, to address these effects. The amount of rehabilitation performed in ICUs is often inadequate.

A strategy for whole-body rehabilitation-consisting of interruption of sedation and physical and occupational therapy in the earliest days of critical illness-was safe and well tolerated, and resulted in better functional outcomes at hospital discharge, a shorter duration of delirium, and more ventilator-free days compared with standard care.

References

1. GOSSELINK, R., et al. *Physiotherapy for adult patients with critical illness: Recommendations of the European Respiratory Society and European Society of Intensive Care Medicine Task Force on Physiotherapy for Critically Ill Patients Intensive Care Med* (2008) 34:1188–1199.
2. SCHWEICKERT, W.D., et al. *Early physical and occupational therapy in mechanically ventilated, critically ill patients: a randomised controlled trial. Lancet*. 2009 May 30;373(9678):1874–82. Epub 2009 May 14.

ENTERAL NUTRITION IN SEVERE ACUTE PANCREATITIS. QUESTIONS LOOKING FOR ANSWERS

Grigoraș Ioana, MD, PhD

University of Medicine and Pharmacy "Gr.T. Popa"

Anesthesia and Intensive Care Department

University Hospital "Sf. Spiridon", Iași, Romania

The nutritional policy in acute severe pancreatitis changed dramatically in the last two decades. After years of recommendations for *nihil per os* combined with total parenteral nutrition, the policy moved to enteral nutrition delivered by jejunostomy combined with total parenteral nutrition, than changed to only (if possible) enteral nutrition. Then enteral nutrition by nasojejunal tube was advocated. Lately intragastric nutrition in acute severe pancreatitis is under scrutiny.

The "classical" recommendation *nihil per os* aimed the pancreatic rest. Meanwhile the caloric needs should be delivered by total parenteral nutrition. Fasting has a lot of deleterious consequences: villous atrophy, decreased splanchnic blood flow, loss of epithelial tight junctions, decreased secretion of bile salts and IgA, decreased *gut associated lymphoid tissue* (GALT), bacterial overgrowth and bacterial translocation. The impaired GALT alters the macrophage priming, promotes the release of cytokines, free oxygen species and arachidonic acid metabolites, all of them resulting in enhanced inflammatory reaction and systemic inflammatory response syndrome (1,4,6).

By contrast, enteral nutrition preserves the integrity and the barrier function of intestinal epithelium, enhances blood flow, avoids bacterial overgrowth and bacterial epithelial adhesion and prevents bacterial translocation. It is important to stress that infection of pancreatic necrosis is due to enteral bacteria (1,4,6). Thus, enteral nutrition is not only a support intervention, but a therapeutic one because it may directly influence the evolution of the disease by preventing infection of necrotic tissue. It also promotes bowel movements, shortening the duration of paralytic ileus and decreasing intra-abdominal pressure.

Taking into account that 65% of total immune tissues and 80% of immunoglobulin producing tissues belong to the digestive tract (*gut-associated lymphoid tissue* –GALT and *mucosal-associated lymphoid tissue* –MALT), enteral nutrition has an important