



WEB OF SCIENCE

FAVORABLE OUTCOMES WITHIN A COMPREHENSIVE THERAPEUTIC REHABILITATIVE PROGRAM IN A COMPLEX CASE OF SEVERE POLYTRAUMA – CASE REPORT

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Abstract

Introduction. A polytrauma patient after a car accident represents a challenge for the health care system due to the multiple traumatic injuries, at least one of them potentially being life threatening. The musculoskeletal injuries are common in this pathological context and the flail chest represents a severe condition with high risk of mortality and morbidity. Many of these injuries require intense nursing and rehabilitation treatment, because some of them can cause permanent disability, affecting the patient’s future quality of life.

Material and method. With the permission of the THEBA Ethics Committee, this paper presents a case of a 37-year-old patient with a severe polytrauma due to a car accident (driver), occurred on October 18, 2020. The patient was hospitalized in the Intensive Care Unit of the Emergency County Hospital of Targoviste, in a severe condition, being orotracheal intubated and having a thoracic polytrauma (multiple bilateral costal fractures, anterior-superior flail chest with acute respiratory failure) and mandible fracture. After clinical and hemodynamic stabilization, he was transferred to Bucharest Emergency University Hospital and after specific paraclinical investigations, he was surgically treated for thoracic fixation with metal plates, sternal fixation with plate and screws, thoraco-abdominal skin grafting and mandibular stabilization. Afterwards he was transferred to THEBA at the Plastic Surgery Clinic Department for lumbar-sacral pressure sore, where he suffered multiple surgical interventions. In our Neuromuscular Rehabilitation Department, the patient was admitted in 16.02.2021 with pain and severe functional impairments in the right elbow and the right knee, surgically treated sacral pressure sore still in the process of being healed and having a severe deficiency of self-care and locomotion. He initially followed a rehabilitation nursing program and continued with a recovery therapy according to clinical stages. The patient was functionally assessed using the following scales: Medical Research Council (MRC) Scale for Muscle Strength, Functional Independence Measure (FIM), Life Quality Assessment (QOL), FAC International Scale, Independence Assessment Scale in Daily Activities (ADL/IADL).

Results. Although the patient's evolution was slow, he had favourable outcomes with an increase in the scores of the evaluated scales at discharge. He benefited from a specific surgical care of the pressure sores and a complex neuro-muscular rehabilitative program. The patient’s final performance in our clinic was walking on medium distances with support from another person.

Conclusions. The multidisciplinary team approach with the addition of complex nursing measures and a personalized rehabilitative program for a young patient with polytrauma caused by a car accident established neuro-locomotor improvements which led to an increase in patient’s quality of life.

Key words: *neuro-muscular rehabilitation, polytrauma*