

Editorial



Advancements in Neurointensive Care Medicine for the Treatment of Central Nervous System Injuries

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Conflict of Interest

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Advancements in medicine over the past centuries have significantly improved the treatment of various incurable diseases. In parallel, remarkable developments have occurred in the medical management of patients with brain and spinal cord trauma. However, due to the irreversible nature of the central nervous system injuries beyond a certain threshold and the severity of the illness experienced by these patients, treatment outcomes still remain unsatisfactory. To enhance the treatment outcomes for individuals with such injuries, the field of neurointensive care medicine has been established.

Neurointensive care medicine focuses on the comprehensive management of critically ill patients with acute neurological conditions, with the objectives of minimizing secondary neurological damage, mitigating medical side effects, and facilitating recovery. Over the past two decades, neurocritical care medicine has undergone rapid growth, incorporating novel techniques in neuromonitoring, neuroimaging, and various therapeutic tools. Neurointensive care medicine specialists from diverse subspecialties, including cardiology, endocrinology, infectious disease, respiratory medicine, neurology, and neurosurgery, have collaborated to provide essential care for critically ill patients with neurological disorders.

Proficiency in neurointensive care medicine requires not only expertise in neurological monitoring systems, such as continuous intracranial pressure monitoring and electroencephalogram monitoring, but also proficiency in standardized intensive care monitoring systems and techniques, including blood pressure management. Additionally, acquiring and mastering treatment techniques for hypertension, hypervolemia, and hypothermia management are essential.

Therefore, advancements in neurointensive care medicine play a vital role in the treatment of central nervous system injuries. We anticipate that this special issue will aid in furthering the advancements of the neurointensive care field.