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Guest Editorial

Disorders of consciousness: A field in flux

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More than half a century ago, the exploration of disorders of consciousness (DoC) was a considerably constrained area of study. Individuals with severe brain injuries, prone to experiencing impaired consciousness during recovery, frequently faced fatal outcomes. The landscape transformed in the 1950 s with the advent of artificial respiration, enabling the extension of the lives of these patients even in the presence of substantial damage to brain regions crucial for vital function control. Clinicians began encountering patients who, while alive, exhibited unresponsiveness to their surroundings. This gave rise to a nascent field known as DoC.

Although the management of patients with severe brain injury remains a formidable task, the field is undergoing rapid advancements. Twenty years ago, the central emphasis was on delineating and understanding the processes involved in consciousness. Clinicians primarily partnered with neuroscientists, assisting in recruitment to augment theoretical knowledge, even if its direct applicability to practice was minimal. Presently, the constantly growing pool of knowledge regarding DoCs has resulted in significant advancements in assessment and treatment. The ongoing promulgation of evidence-based medicine publications and general interest in persons with DoC has significantly altered the perception of the key role of neurorehabilitation for these patients.

Recent initiatives have emerged to cultivate global networks of collaboration (such as the Special Interest Group on DoC of the International Brain Injury Association; IBIA DoC-SIG). Guidelines incorporating research evidence on the treatment and proper management of persons with DoC have been formulated and widely disseminated. Naturally, conducting research within an experimental framework poses significant challenges when dealing with this patient population. Enlisting and retaining these patients can be difficult due to factors such as fatigue and agitation. Consequently, the effective coordination of multidisciplinary resources and knowledge, especially between clinicians and neuroscientists, has become more critical than ever. This collaborative approach undeniably holds the potential to overcome these challenges and is already driving substantial improvements in the care of patients with severe brain injuries.

This issue of NeuroRehabilitation is designed to inform clinicians and researchers of the current state of our knowledge regarding DoC, offering a compilation of articles from a cadre of well-recognized international clinicians covering a wide range of topics including nomenclature, diagnosis and prognosis, assessment techniques (such as behavioral scales, multi-modal assessment, and brain-computer interface), clinical management, and ethical as well as medicolegal issues. This thematic issue of NeuroRehabilitation will hopefully serve to update, educate and inspire clinicians and researchers as well as encourage future research endeavors in this critically important area of neurorehabilitation.

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