

Note on Disorders of Consciousness

Zang Wang*

Department of Health Science, LV University, China

INTRODUCTION

This issue of Behavioural Neurology is devoted to the investigation of the long recognized link between epilepsy and disturbances of consciousness. Interest in this topic has witnessed an unprecedented scientific renaissance over the last few years, for two orders of reasons. First, most types of epilepsy are characterized by specific alterations in the level of general awareness and/or the subjective contents of consciousness, which are central aspects of patients' ictal experiences and can now be assessed and quantified with newly developed psychometric tools. Second, the investigation of what Hughlings-Jackson called the 'occasional, sudden, rapid and local discharges of grey matter' has started to shed light on the brain mechanisms underlying pathophysiological states of altered consciousness, thanks to the development of sophisticated neurophysiological and neuroimaging techniques. The implementation of combined electroencephalography and functional magnetic resonance imaging (EEG-fMRI) is just an example of this ongoing revolution. Therefore, the fact that this special issue is appearing in Behavioural Neurology reflects the surge of interest from both neurologists and neuroscientists. In this issue, epilepsy experts from around the world have contributed their in-sights by reviewing the latest developments in clinical and

experimental research on epilepsy and consciousness. The first set of contributions focuses on the phenomenological analysis of ictal alterations of consciousness in patients with epilepsy, which is accompanied by specific behavioural and cognitive changes. The second group of papers presents our current knowledge of the brain mechanisms underlying altered consciousness in both focal generalized seizures.

The sudden alterations of consciousness caused by absence seizures are of particular conceptual relevance, and are also addressed from a theoretical perspective. The following section deals with two emerging scientific paradigms which hold promise in refining our understanding of the neural bases of epilepsy-induced alterations of consciousness. These are the definition of the 'default mode network, which has been shown to have a central role in neuropsychiatric conditions characterized by alterations of consciousness, and the conceptual framework of the 'global workspace theory of consciousness, which provides a useful model for understanding both normal and altered conscious states. Finally, the specific issues related to epilepsy and consciousness in clinical practice, namely the recent applications of neurostimulation techniques, the impact of seizure-induced alterations of consciousness on the quality of life of patients, and consciousness in non-epileptic attack disorder.

*Correspondence to: Zang Wang, Department of Health Science, LV University, China, E-mail: wang.zang22@gmail.com

Received: May 12, 2021; Accepted: May 13, 2021; Published: May 19, 2021

Citation: Wang Z (2021) Note on Disorders of Consciousness. J Sleep Disord Ther 10:e105.

Copyright: ©2021 Wang Z. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.