Understanding Neurological Disorders: A Comprehensive Overview

Lan Xiong*

Department of Psychiatry, University of Montreal, Canada

I

Neurological disorders a ect millions of people worldwide, posing signi cant challenges to their quality of life and overall well-being. ese disorders can be diverse in nature, a ecting di erent regions of the nervous system and manifesting in various symptoms. is article aims to provide a comprehensive overview of neurological disorders, their causes, symptoms, and potential treatments, shedding light on the complexities surrounding these conditions [1].

?

Neurological disorders refer to a broad range of conditions that impact the Central Nervous System (CNS), including the brain, spinal cord, and peripheral nerves. ese disorders can arise from a multitude of factors, such as genetic mutations, infections, trauma, autoimmune responses, or the degenerative process of aging [2] (Table 1).

C

A : is progressive neurodegenerative disorder is characterized by memory loss, cognitive decline, and behavioural changes. It is the most common form of dementia, a ecting primarily older adults.

P : Parkinson's is a chronic and progressive disorder that a ects movement. It is characterized by tremors, muscle sti ness, impaired balance, and bradykinesia (slowness of movement).

M (MS): MS is an autoimmune disorder where the immune system mistakenly attacks the protective covering of nerve

epilepsy and depression.

T [illegible] (TMS): TMS uses magnetic elds to stimulate speci c regions of the brain. It is used as a non-invasive treatment for depression and has shown promise in other conditions such as migraines and obsessive-compulsive disorder.

T [illegible] (tDCS): tDCS delivers low-intensity electrical currents to the brain, modulating neural activity. It is being explored as a potential treatment for various neurological and psychiatric conditions, including stroke rehabilitation, chronic pain, and depression [7].

N [illegible]: Neuroprosthetics involve the use of implanted devices to restore or enhance neurological function. Examples include:

C [illegible]: Cochlear implants are electronic devices that help individuals with severe hearing loss or deafness by bypassing damaged parts of the inner ear and directly stimulating the auditory nerve.

R [illegible]: Retinal implants aim to restore vision in individuals with certain types of blindness. ese devices convert visual information into electrical signals that stimulate the remaining functional cells of the retina.

B [illegible] (BCI): BCIs establish a dirim tpai33ush6mlaw [(B)-20(C t)-6()8(eT)22(s es)5(t)-6(a85,t)-4t