

Editorial Note on Neurodegenerative Diseases

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Traumatic brain injury (TBI) stands as a global health concern precipitated by incidents ranging from bumps to jolts, each capable of inflicting wide-ranging physical and psychological repercussions. Manifestations commonly encompass transient loss of consciousness, dizziness, headache, nausea, and vomiting, with some signs emerging immediately post-injury while others surface days or weeks later. TBI constitutes a significant cause of mortality and disability worldwide, with mounting evidence suggesting a heightened susceptibility among individuals exposed to TBI earlier in life to develop neurodegenerative conditions such as Alzheimer's disease (AD), Parkinson's disease (PD), chronic traumatic encephalopathy (CTE), and sporadic amyotrophic lateral sclerosis (sALS).

Accumulating pathological evidence over recent decades indicates a correlation between TBI and the neurodegenerative process, characterized by the aggregation or inclusion of specific proteins such as TDP43, P-tau, and amyloid- β in the brains of afflicted individuals diagnosed with neurodegenerative diseases during their lifetimes. Despite these insights, the precise mechanisms through which TBI instigates or exacerbates pathological cascades remain elusive, warranting further research investments to unravel this enigma.

In this context, we invite submissions for papers exploring the effects of TBI on neurodegeneration. We welcome investigations spanning histological, behavioral, biochemical, and intravital imaging studies, with the aim of elucidating the intricate interplay between TBI and subsequent neurodegenerative sequelae.

We look forward to contributions that deepen our understanding of this critical intersection between traumatic brain injury and neurodegeneration.

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