

PREFACE

At a time when there is an exponential growth in research related to the neurological and psychological bases of behavior, the mental–motor functional duality of the brain appears progressively unified. This is reflected by the growing commitment of the medical community to better understand and manage mental dysfunctions associated with hypo- and hyperkinetic movement disorders. Fundamental and behavioral sciences also provide the scientific community with plenty of new data that help to conceptualize the basal ganglia and cerebellum as critical structures for many mental processes.

Mental and Behavioral Dysfunction in Movement Disorders is dedicated to both clinicians and scientists working in the fields of the brain and behavioral sciences. The idea of this work grew out of a wish to gather specialists from around the world with wide-ranging research interests and clinical expertise, in order to shed light and establish new standards in the study and the treatment of many cognitive, affective, and behavioral dysfunctions associated with movement disorders.

The aim of *Mental and Behavioral Dysfunction in Movement Disorders* is to provide the reader with an authoritative account of the recent developments in the field set against a background of review material. It will allow scientists and clinicians to better understand and manage mental dysfunctions associated with Parkinson's disease, multiple system atrophy, progressive supranuclear palsy, corticobasal degeneration, Lewy body diseases, Huntington's disease, Tourette syndrome, cerebellar degeneration, and many other related syndromes. The volume gathers some of the world's most renowned scientists and clinicians working on the fundamental and clinical aspects of dementia, depression, psychosis, sleep disorders, and other affective, cognitive, or behavioral conditions associated with movement disorders.

The book is divided into thematic sections containing multiple chapters. Each chapter consists of an in-depth presentation on a specific question. In an introductory chapter (Part I), Parkinson's and Huntington's diseases are depicted from a historical perspective that allows the reader to realize that mental dysfunctions have long been acknowledged, but not adequately emphasized in hypo- and hyperkinetic movement disorders.

Part II discusses the neurobiological evidence showing that cognitive and affective aspects of behavior and mental processes may involve the basal ganglia and the cerebellum.

Parts III and IV are concerned with the cognitive deficits associated with several movement disorders. The topics of attention and intention, memory, as well as language, praxis, and executive functions are all covered in the different chapters. Functional descriptions of the syndromes or models are grouped together in Part III, whereas the physiological, anatomical, and neurochemical aspects form Part IV.

Part V presents the state of the art on neurodegenerative dementia so frequently associated with movement disorders. This section encompasses the diagnosis and treatments, as well as the epidemiology, neuropathology, and genetics of these dementing illnesses.

The chapters in Part VI are devoted to the emerging field of neuropsychiatry in movement disorders. This includes both psychiatric conditions that may be associated with

movement disorders and, conversely, abnormal movements that may occur in some specific psychiatric syndromes.

Quality of life in Parkinson's disease is discussed in Part VII. Owing to the high prevalence of this disease and the importance of quality of life in contemporary management of such a neurodegenerative illness, we have dedicated an entire section to this topic. Social and medical determinants as well as sexual dysfunctions and sleep disturbances are presented before concluding the section with a specific chapter on life expectancy in Parkinson's disease.

I hope that this book will succeed in illustrating to the interested scientist and clinician the state of the art on mental and behavioral dysfunctions in movement disorders.

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