NEUROLEPTIC-INDUCED MOVEMENT DISORDERS

Neuroleptics, one of the most widely prescribed groups of psychotropic drugs, are indispensable in the management of the majority of patients with schizophrenia, as well as patients with other psychoses. But neuroleptic treatment has not proved to be an unmixed blessing. Neuroleptics are associated with troublesome adverse side effects, of which movement disorders are the most serious in terms of frequency, persistence, and overall impact on the well-being of patients and caregivers. Medication-induced movement disorders have now been recognized as a separate category in DSM-IV.

This book was compiled with the aim of improving our understanding and clinical management of these iatrogenic conditions. It deals with the historical, clinical, and neurobiological aspects of tardive dyskinesia and related movement disorders, such as parkinsonism, dystonia, and akathisia. There are also chapters devoted to the measurement of tardive dyskinesia, its geographic and ethnic differences, and its management with novel neuroleptic agents and biofeedback.

With authoritative contributions and an international perspective, this book will be valuable to clinicians and researchers alike in psychiatry, neurology, and related disciplines.
NEUROLEPTIC-INDUCED MOVEMENT DISORDERS

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Preface

It is interesting to note that the three classes of psychotropic drugs that were introduced into psychiatry within the span of a few years around 1950 have had greater impact in the treatment of the major psychiatric disorders than have any other forms of treatment in this century. These include the antipsychotic drugs or neuroleptics, the tricyclic antidepressants, and lithium. Of the three groups, neuroleptics are easily the most widely prescribed agents worldwide. They are being used — and sometimes overused and misused — to treat not only schizophrenia and other psychoses but also a host of additional behavioral disorders. Although neuroleptics continue to be indispensable in the management of a majority of schizophrenic patients, as well as some other psychotic individuals, they have not proved to be an unmixed blessing. In terms of frequency, persistence, and overall impact on the quality of well-being for patients and caregivers, movement disorders are the most serious adverse side effects of neuroleptics.

The importance of iatrogenic movement disorders in psychiatry can be deduced from the fact that the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV), recently published by the American Psychiatric Association, includes a separate category of “medication-induced movement disorders.” This newly delineated group of conditions primarily includes neuroleptic-induced movement disorders such as parkinsonism, dystonia, akathisia, and, especially, tardive dyskinesia. The American Psychiatric Association had previously appointed two task forces on tardive dyskinesia, and those groups published reports in 1980 and 1992.

In the past few years, there have been exciting advances in psychopharmacology. Dopamine and serotonin antagonists, including clozapine, risperidone, and olanzapine, are being used to treat increasing numbers of patients. In contrast to the traditional dopamine-blocking antipsychotic agents, it has been shown that these newer drugs significantly reduce the negative symptoms of schizophrenia and produce fewer extrapyramidal side
effects. Nonetheless, they are not free of the risk of inducing movement disorders. In all probability, the neuroleptic-associated movement disorders will be with us for at least the immediate future. Until the emergence of a new generation of antipsychotic agents that can act highly selectively, with no risk of causing movement disorders, we need to study these iatrogenic conditions in depth so as to understand them better and improve the management of our patients. We hope that this book will be of value to those interested in understanding the clinical uses of neuroleptic agents and the research into their adverse effects.

This book is divided into seven parts. Part I has a chapter that provides the historical perspective on neuroleptic-induced movement disorders. Part II deals with the clinical aspects of tardive dyskinesia – the most serious of the iatrogenic movement disorders. The nine chapters in Part II discuss studies of the epidemiology of tardive dyskinesia, the various predisposing risk factors such as aging, gender, primary psychiatric disorders (e.g., schizophrenia, affective disorder), and physical co-morbidity (especially diabetes mellitus), other patient-related factors such as family medical history and smoking, and treatment-related factors (principally neuroleptic and anticholinergic medications). Part III focuses on the neurobiological mechanisms likely involved in tardive dyskinesia. Its seven chapters consider the possible neurochemical abnormalities (involving mainly the neurotransmitters in the basal ganglia, with particular emphasis on dopamine and phenylalanine) and the neuroendocrine, cognitive, and structural brain abnormalities related to tardive dyskinesia. There is also a discussion of animal models pertaining to the disorder. Part IV presents a chapter on clinical and instrumental measurements of the severity of tardive dyskinesia. Part V focuses on the manifestations of tardive dyskinesia in different patient populations. Its five chapters summarize numerous studies of tardive dyskinesia in Asia, North Africa, the Middle East, and Europe, as well as studies of patients from diverse racial/ethnic groups and studies involving children and adolescents. Part VI deals with other movement disorders induced by neuroleptics – parkinsonism, acute and tardive dystonia, and tardive akathisia. The chapters in Part VII discuss the management of tardive dyskinesia using novel neuroleptic agents, GABA-ergic drugs, and biofeedback. Although this book may not contain a chapter on every single aspect of neuroleptic-induced movement disorders, we have attempted to cover all the critical issues in the clinical and research arenas pertaining to this topic.

We find it indescribably sad that this preface is being written by only two of the original three editors. Ramzy Yassa, M.D., died unexpectedly at the age of 52 on October 3, 1992, while working on this volume. We consider
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ourselves blessed to have worked with Dr. Yassa on this and many other projects.

Dr. Yassa was born in Cairo, Egypt. After completing his medical training in Cairo, he earned M.B. and B.Ch. degrees before moving to Montreal, Canada, where he completed his residency in psychiatry at the Douglas Hospital, Montreal, subsequently becoming a Fellow of the Royal College of Physicians and Surgeons (Canada) and a Diplomate of the American Board of Psychiatry and Neurology. Dr. Yassa joined the staff of the Douglas Hospital and the faculty of McGill University, where he became a professor of psychiatry. He published more than a hundred papers and book chapters on various topics, mainly in the area of psychopharmacology.

Dr. Yassa was truly a remarkable man. A gentleman and a scholar, he was also an outstanding scientist. He set a role model for others, conducting high-quality clinical research without the benefit of external grant support and without laboratories and other such resources. He was a gifted phenomenological researcher, with exquisite powers of observation. Many clinical observations first reported by Dr. Yassa have subsequently been replicated by other investigators with much greater resources at hand. Dr. Yassa was an inspirational teacher and mentor for a large number of young investigators. As caring and compassionate with his junior and senior colleagues as he was with his patients, he touched forever the lives of those fortunate enough to know him. He will be sorely missed by his patients, colleagues, and friends. We dedicate this book to the achievements of Ramzy Yassa, M.D.

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