Toward Understanding Tourette Syndrome

By Gerald Erenberg, MD, guest editor

Tourette syndrome (TS) has fascinated both neurologists and psychiatrists from the earliest days of its description. The interplay between neurologic, psychologic, genetic, and environmental factors makes TS a unique model for all neuropsychiatric disorders. Although no longer considered a rare and esoteric disorder, the exact incidence of TS has yet to be accurately determined.

The exciting work being done in the psychiatric, neurologic, and genetic scientific communities is raising new awareness toward understanding both the underlying mechanisms which lead to TS, as well as new clinical approaches to its treatment. In this and the following issue of CNS Spectrums, the reader will develop a better understanding of this complex disorder and will learn about clues which will guide our future lines of inquiry.

There is a human dimension to all illness, and this issue begins with a moving and personal perspective on what it means and what it feels like to have TS. Written by a talented neuroscientist, the report by Dr. Peter Hollenbeck is a fitting beginning to a discussion of TS.

The following article is a review of the history of TS. This detailed account will help today’s medical scientists and clinicians understand how current concepts about TS evolved from its first description. It also explains another factor that makes TS a model for cooperation between the medical and lay communities. The Tourette Syndrome Association (TSA), a support group formed in the 1970s, has taken on two simultaneous missions. One, naturally, has been to meet the needs of its members. But, in addition, the TSA has actively and successfully used its funds to interest researchers in TS. Many of the contributors to these issues on TS have received such grants from the TSA.

The articles which follow have clinical relevance. The neurologic aspects of TS are reviewed first, followed by Dr. John Walkup’s discussion of the comorbid behavioral components of TS. A search for the cause of TS has now been broadened to include the possibility of an infectious and autoimmune component, and Dr. Roger Kurlan explains what we know and do not know about the relationship between TS, obsessive-compulsive disorder, and streptococcal infections. New evidence suggests the possibility that nicotine and related compounds may be useful treatments for TS, and the research in this field is reviewed by Drs. Silver, Shytle, and Sanberg. The final article describes five cases of eating disorder in patients with obsessive-compulsive symptoms and TS. There may be, therefore, a subset of eating disorders with a link to TS and to obsessive-compulsive symptomatology reflecting a common underlying neurological imbalance.

Current understanding about the neurobiology of TS will be reviewed in the next issue of CNS Spectrums beginning with an editorial by my co editor, Dr. Neal Swerdlow. In the forthcoming issue will be reviews of the progress being made in the fields of neuropathology, neuroimaging, and genetics. Finally, Dr. Swerdlow and I would like to thank CNS Spectrums and its editorial staff for allowing these two issues to be devoted to TS. We hope that the readers will gain new knowledge and heightened interest in TS so that we can move forward in our quest to unlock the mysteries of this complex disorder.

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