Tardive dyskinesia: understanding current challenges in diagnosis and treatment

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Perhaps the most disappointing aspect of the psychopharmacological revolution of the 1950s was the emergence of serious adverse effects that were hitherto virtually unknown. Principal among those effects was tardive dyskinesia (TD) – a syndrome of complex, repetitive, and purposeless movements rarely seen before the widespread use of antipsychotics, but which became endemic by the 1980s. Within mental health facilities TD became, literally, unremarkable – it was so common that it came to be something not worthy of comment.

With the advent of second-generation antipsychotics, TD is less often seen now, but it is certainly still with us, and TD even now represents a serious undesired outcome of antipsychotic prescribing. The recent trend in off-label use of antipsychotics for various psychiatric disorders other than schizophrenia may further compound this concern.

In this special issue, we present two comprehensive summaries of the current understanding of TD. In the first, Yasuhiro Mori and colleagues focus on the burden of TD in Japan. They observe that the prevalence of TD in Japan is around 7% of patients treated with antipsychotics. Assuming a prevalence of schizophrenia of 0.3% in Japan and universal use of antipsychotics, this figure of 7% represents close to 30 000 people – clearly a substantial number. The authors discuss methods for identifying and quantifying the severity of TD and closely examine the evidence relating to factors increasing the risk of TD (duration of antipsychotic, dose of antipsychotic, type of antipsychotic, history of mood disorder, age, diabetes, etc). Genetic identification of high-risk patients offers promise. Factors relevant to Japan were identified to be high rates of both polypharmacy and anticholinergic prescribing and a relatively low usage of clozapine. The expert consensus panel notes that with respect to side effects of antipsychotics, many physicians focus on the impact on metabolic factors, but routine attention must also be paid to TD, particularly with long-term administration. As such, the panel recommends better awareness of TD among clinicians, better informing of patients of the risks of TD and better prescribing of antipsychotics by Japanese clinicians.

In the second paper, the same authors, this time led by Hiroyoshi Takeuchi, examine the causes and treatment of TD, summarising the views, opinions, and observations of a round table discussion of Japanese experts. Three pathologies are discussed: dopamine supersensitivity, GABA neuronal damage and hypofunction, and free-radical neuronal toxicity. One or more of these processes may contribute to the development of TD. Treatments to some extent support the supposed mechanisms of TD, but few are backed by a wide body of evidence and even fewer (clozapine, VMAT-2 inhibitors) have more than moderate efficacy. The authors note the recent approval in Japan of the VMAT-2 inhibitor, valbenazine, is likely to offer TD patients new hope in the future. The authors emphasise that the sometimes conflicting results of the past several decades of research on treatment of TD underlie the need for further research and accumulation of evidence to inform best practice.

Given that it is difficult for clinicians to diagnose TD based solely on brief visits at the clinic, at which patients may be nervous or embarrassed about discussing symptoms, it is the authors' hope that not only physicians but also other medical staff, caregivers, and patients alike can all play a role in monitoring for TD.

Declarations

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Consent for publication
Not applicable.

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