Case Report

Management of Psychosis Accompanying Tourette Syndrome with Quetiapine

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Abstract

Gilles de la Tourette (or briefly Tourette) syndrome (TS) is a neurobehavioral disorder that often begins in childhood and is characterized by motor and vocal tics. Many psychiatric disorders may accompany TS, attention-deficit hyperactivity disorder, and obsessive–compulsive disorder being the most frequent. However, literature regarding the association between TS and psychosis is controversial. We present a patient who has comorbid TS and psychosis and is treated successfully with quetiapine.

Keywords: *Brief psychotic disorder, first-episode psychosis, psychosis, quetiapine, Tourette syndrome*

Introduction

Gilles de la Tourette (or briefly Tourette) syndrome (TS) is a neurobehavioral disorder, characterized by motor and vocal tics with a waxing-and-waning nature, which typically commences in childhood and may accompany many psychiatric conditions.[1-3] The lifelong prevalence of TS in population is 0.3%–0.8%,[3,4] and men are three to five times more likely to be affected than women.[5-7] With attention-deficit and hyperactivity disorder (ADHD) being the most frequently seen comorbidity in TS,[3,5] obsessive–compulsive disorder (OCD), anxiety disorders, and poor impulse control are the psychiatric conditions that may occur in the course of TS.[3,5-7] Along with papers stating that intelligence is not affected and the prevalence of psychosis is not increased in TS,[5,8] there are also papers that describe psychotic comorbidities in the literature.[9-11] In a study conducted by Müller *et al*., the prevalence of schizophrenia among patients with TS is said to be high,[12] and Kerbeshian *et al*. found that the prevalence of schizophrenia is 2.5% among 399 patients with TS.[13] As seen, medical literature regarding the comorbidity of TS and psychosis is yet controversial and inadequate.

Pharmacotherapeutic intervention of TS mainly consists of alpha-2 (α_2) adrenergic receptor agonists and antipsychotics.[6,7] Antipsychotics are more effective than alpha-2 agonists;[3] however, since the side effect profiles of alpha-2 agonists (clonidine and guanfacine) are more favorable, they are recommended as the first-line agents.[6,14] Amid the antipsychotic drug choices, pimozide and haloperidol are the most supported agents.[3,6,14] Other antipsychotics that are used for the management of TS are risperidone,[3,7,14] aripiprazole,[7,14] olanzapine,[7,14] sulpiride,[14] ziprasidone,[14] and quetiapine.[3]

Case Report

The patient presented hereby was female aged 22 years. She attended our hospital's psychiatric emergency department with complaints of "hearing voices," "seeing things," and suicidal thoughts. Via a psychiatric interview, the psychiatric history of the patient was ascertained. During her primary school years, she had been attended our hospital's child and adolescent psychiatry department with motor and vocal tics and diagnosed with TS. The pharmacological management was initiated with haloperidol; however, as a result of an oculogyric crisis, haloperidol was replaced with aripiprazole and she was followed with this agent until the age of 16. Vocal tics completely disappeared and motor tics

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diminished in intensity nearly closing to inexistence. At the time she attended our hospital, she stated that because her motor tics hardly affected her daily life, she was not using her medicine for nearly 6 years. Three weeks before her attendance, she was settled to a women's shelter due to family issues and her complaints began 1 week afterward. Two weeks after the onset of her complaints, suicidal thoughts emerged.

After the assessment in the emergency department, she was hospitalized because of the risk of suicide. On hospitalization, physical and neurological examinations, complete blood count, analysis of blood chemistry, urinalysis, and urine toxicology screening were performed to rule out any psychiatric condition due to general health problems or substance use. Electrocardiogram (ECG) was also carried out. No abnormalities were detected in physical examination and ECG. Blood ferritin and folate levels were detected low, and during hospitalization, oral iron and folate replacement was done. In neurological examination, there were no abnormal findings apart from motor tics of upper extremities with low intensity.

In the mental status examination, she was conscious and cooperative. She was oriented to person, place, and time. She was willing for the psychiatric interview and establishing eye contact. Her self-care was slightly decreased. Her speech was spontaneous and in the normal range in terms of amount and speed. Her mood was dysphoric, and her affect was anxious and congruent with mood. She was crying, especially when talking about her suicidal thoughts. Throughout the psychiatric interview, her thought process was linear, organized, and goal-directed. In thought content, no delusions, obsessions, and overvalued ideas were detected, but there were suicidal thoughts. No compulsions were encountered. From time to time, she had abnormal perceptions such as auditory hallucinations experienced as "whisperings" or "voices that order me not to tell anyone that I hear them," visual hallucinations experienced as "indistinguishable but somehow horrifying faces," auditory illusions experienced as hearing people's voices hoarse, and finally visual illusions as seeing people's faces twisted. There were no perceptional abnormalities in other modalities and no dissociative symptoms. Her reasoning and abstraction were normal. Her attention, concentration, and memory were normal. Her linguistic capacity and calculation were not impaired. She had a nearly full insight.

In light of her psychiatric history and examination, she was diagnosed with tic disorder (Tourette's disorder) and brief psychotic disorder according to the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition. At the time of attendance at our hospital, she was experiencing the fore-mentioned psychotic symptoms and psychotic anxiety. As she had an oculogyric crisis history with haloperidol, primarily, aripiprazole was thought to be given as an agent that is beneficial both for TS and psychotic symptoms; however, since she was also experiencing overwhelming anxiety symptoms, treatment was initiated with 300 mg/day quetiapine instant release (IR formulation) in three divided doses. Because this was the first psychotic episode, to rule out any neurological disorder, cranial magnetic resonance imaging and electroencephalography were carried out, and neurology consultation was requested. No neuropathologies were found. She was followed with this treatment, and after the 10th day of her hospitalization, no psychotic symptoms remained. She was prescribed 300 mg/day quetiapine IR in three divided doses and discharged from the hospital.

Discussion

In the presence of TS, psychosis is not the first comorbidity that comes to mind; however, especially with comorbid OCD that may present with overvalued ideas, psychotic disorders might go unnoticed particularly in the absence of hallucinations. Being aware of psychotic disorders in the course of TS is of great importance in terms of prognosis. Accordingly, Takeuchi *et al*. state that TS and psychotic disorders have common clinical and biochemical properties and similar pathophysiology; thus, they might be seen together.[13,15]

Since antipsychotics are used extensively in the management of TS, after cessation of these agents rebound, psychosis may be seen.[11,16,17] Furthermore, there are studies in the literature that express usage of these agents might even mask possible underlying psychotic symptoms.[13] Both rebound psychosis and the comorbid psychotic disorders supervene on tics.[12,15]

It is well demonstrated that second-generation antipsychotics are the most beneficial drugs in the treatment of TS.[3] Evidence also supports quetiapine use, although relatively less robustly.[3] The case we present herewith suggests that quetiapine is a suitable choice as it ameliorates both the anxiety symptoms in the acute period and the psychotic symptoms in the course of TS, but further research in this area is needed.

Conclusion

In the literature, it is stated that psychotic symptoms are seen in patients with TS more prevalently than in the general population. Keeping this in mind, patients with TS should be examined for possible psychotic symptoms as these symptoms both necessitate the usage of antipsychotics instead of alpha-2 agonists, which are the first-line agents in the treatment of TS, and complicate the clinical picture. Tics in TS may generate anxiety and psychosis that may further aggravate the symptoms. Quetiapine should be considered in the treatment, particularly in this condition.

Patient informed consent

There is no need for patient informed consent.

Ethics committee approval

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Conflicts of interest

There are no conflicts of interest to declare.

Author contribution subject and rate

- Onur Toktamış (%40): Contributed with literature research, writing of manuscript and treatment of patient
- Cansu Çakır Şen (%30): Contributed with comments on manuscript and treatment of patient
- Nesrin Buket Tomruk (%30): Contributed with comments on manuscript and treatment of patient.

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