

# Case Report

## Long-term Follow-up of a Case of Gilles de la Tourette's syndrome

Soumitra Das, Arjun Kartha, Sumesh Thoppil Purushothaman

### ABSTRACT

Gilles de la Tourette's syndrome is a combined vocal and multiple motor tic disorder. Here, we present a case of Tourette's syndrome who attended our psychiatric casualty with severe depression and suicidal ideation. On reviewing follow-up records of 23 years, we come to know about the academic decline and nicotine dependence in the early childhood. He also developed co-morbid obsessive compulsive disorder (OCD) along with severe depression. He was agitated and self-injurious. We diagnosed him as Gilles de la Tourette's syndrome with co-morbid OCD, depression, nicotine dependence. The patient was treated with haloperidol, sertraline, and clonidine when he developed mixed switch that necessitated us to stop sertraline. Hence, he was treated with a mood stabilizer and he remitted. Here, we want to show how Tourette's syndrome can take a longer course with different co-morbidities in a single person's life. As per our knowledge, such presentation is relatively rare in Indian literature.

**Key words:** Co-morbidities, course, tics, Tourette's syndromes

### INTRODUCTION

Tourette's syndrome is characterized by multiple motor tics like eye blinking or shoulder shrugging and one or more vocal tics such as sniffing or snorting, although these need not have occurred concurrently. The disorder may present with common co-morbidities such as attention deficit hyperactivity disorder (ADHD), obsessive compulsive disorder (OCD), self-injurious behavior (SIB), personality disorders, anxiety, depression, and other less common like oppositional defiant disorder, conduct disorder, learning disorder, rage, autism, etc.<sup>[1]</sup> There is hypotheses such as super sensitivity of postsynaptic dopamine receptors,

dopamine hyperinnervation, abnormal presynaptic function or an excessive phasic release of dopamine as etiological factors.<sup>[2]</sup>

### CASE REPORT

A 37-year-old married male auto driver sixth standard drop out attended psychiatric casualty service with involuntary jerky side to side movement of the head, face, protruding of tongue, and production of abusive words. The onset of illness was during class six when the patient developed repeated eyelids elevation with

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Department of Psychiatry, Govt. T. D. Medical College, Alappuzha, Kerala, India

**Address for correspondence:** Dr. Soumitra Das

C/420, PG Hostel, Medical College Hospital, Vandanam, Alappuzha - 688 005, Kerala, India. E-mail: soumitratdmc@gmail.com

looking toward the right side of his head and blowing his hair. After 3 months, he developed rapid and recurrent involuntary jerky up and down movement of the head, followed by front and back movement of the neck along with whistling sound suggesting of the motor as well as vocal tics. He was consulted with a neurologist as he refused to go to school due to bullying by schoolmates. He was investigated and diagnosed as Tourette's syndrome. There after he was under treatment for 19 years with haloperidol 5 mg daily with regular follow-up from neurologist. He was improved except eyelid tics. Meanwhile, he started using oral nicotine to control the protruding movement of the tongue. Gradually, he started taking almost 20 packets of oral nicotine (Hans, a local nicotine product) per day. He developed nicotine dependence and oral ulcer. He stopped taking drugs 4 years ago without any advice. He contributed the discontinuation due to sedation and started using alternative medicines (acupuncture). He stopped all types of treatment 9 months ago due to the financial crisis. His facial tics reappeared after 15 days of discontinuation. He started showing SIB and created multiple big ulcers on hand. Furthermore, he started suffering from ruminative thoughts about upcoming duties. For the last 4 months, he developed depressive symptoms like low mood, fatigability, decreased talk, decreased sleep, hopelessness, and death wishes. Furthermore, he stopped going to work for the last 2 months. At present, 2 days ago, he experienced auditory and visual hallucination of threatening and commanding type followed by relapse of motor tics with forceful forward movement of neck associated throat clearing sound, protruding out the tongue such as snake, tightly closing eyes, lip smacking, facial twitching, and also sniffing sound by mouth. His family member also noticed aggressive behavior as if he would beat them. He also occasionally uttered abusing words on provocation. We rated the patient's symptoms and quality of life with different scales, such as:

1. Total Yale Global Tic Severity Scale: 86 (0–100) (total tic severity: 36 + impairment: 50).
2. Modified Rush Videotape Rating Scale: 12/20.
3. Yale-Brown Obsessive Compulsive Scale, total score: 24.
4. Hamilton Depression Rating Scale, total score: 20.
5. The World Health Organization quality of life — BREF: 49.

We diagnosed him Tourette's syndrome with co-morbid depressive disorder, OCD, nicotine dependence, SIB. We started him on haloperidol 5 mg along with clonidine 50 mcg/day with close supervision and follow-up. After 1 month while on same medicines his tics were subsided but his depressive symptoms were worsened.

It necessitated us to start sertraline 50 mg/day with reduction of haloperidol to 2.5 mg. However, after 2 weeks patient developed mixed affective state with both manic and depressive symptoms. We stopped sertraline and started him on valproate 600 mg/day with quetiapine 100 mg at night along with the continuation of haloperidol 2.5 mg and clonidine 50 mcg/day. At present, the patient is well maintained on the same drugs, and there is only occasional tics that patient can control by habit reversal techniques. Presently, there are no depressive or manic symptoms. He started going to his job without any difficulty.

## DISCUSSION

Diagnosis of Tourette's syndrome is often missed due to confusion with manneristic motor behavior. Here in our case, disorder started at 14 years of age which is a common age of onset. Gradually, it led to academic decline and drop out from school due to inattention as a part of ADHD and milder form of OCD which are highly genetically correlated with Tourette's syndrome but often under diagnosed in pediatric age group.<sup>[3]</sup> The patient developed nicotine dependence that was related to motor tics of the tongue. Orth *et al.* described that, a single dose of nicotine, at serum nicotine levels similar to those seen after smoking a single cigarette, adjust electrophysiological measures of the excitability of circuit within the motor cortex to normal levels in Tourette's syndrome and reduces tics.<sup>[4]</sup> The patient developed SIB that has a direct relation with OCD, hostility, and tics severity. Tourette's syndrome plus at least one other psychiatric morbidity have a fourfold increased risk of SIB. Later patient also developed OCD and depression. OCD is intimately related with Tourette's syndrome, percentage varying from 11% to 80%. According to some authors, OCD is a different phenotypical expression of Tourette's syndrome. Lifetime risk of depression in Tourette's syndrome is 10%, which is multifactorial like genetic, psychological stressor due to chronic disabling disease, or lack of support.<sup>[5,6]</sup> Depression also may be due to direct comorbidity of OCD, which is quite understandable in this case. Patient also had suicidal ideation and hopelessness which created a crisis situation for family members.

Our case reflects that Tourette's syndrome often takes a complex progressive course even with treatment. Comorbidities are often disabling even more than primary disorder. Comorbidities like SIB, nicotine dependence are less studied in India. Our case throws light on the need for early diagnosis, education, assessment and proper management, especially in growing children.

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### Conflicts of interest

There are no conflicts of interest.

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