Cureus
Part of SPRINGER NATURE

Open Access Case Report

# Tardive Blepharospasm Secondary to Chronic Antipsychotic Treatment: A Case Report

Anthony Amalfitano [1], Nicholas Snyder [1], Luba Leontieva [1]

1. Psychiatry, State University of New York Upstate Medical University, Syracuse, USA

**Corresponding author:** Nicholas Snyder, drummer97nick@gmail.com

**Review began** 02/03/2026
**Review ended** 10/30/2026
**Published** 11/02/2026

© **Copyright** 2026
Amalfitano et al. This is an open access article distributed under the terms of the Creative Commons Attribution License CC-BY 4.0., which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

**DOI:** 10.7759/cureus.119002

## Abstract

Blepharospasm secondary to antipsychotic use is a rare condition that impacts the patient's ability to perform most daily tasks. We want to present a case involving a 55-year-old Black man with a diagnosis of schizophrenia, with a history of first- and second-generation antipsychotic use, who also suffers from blepharospasm. He was admitted to an inpatient psychiatric unit after he was observed to have disorganization in speech and behavior, as well as grandiose delusions. While on the unit, blepharospasm impacted his ability to effectively participate, leading to questions about treatment. Historically, he received botulinum toxin for the treatment of blepharospasm with moderate effectiveness; however, administration of this medication was not available inpatient. On the unit, he was prescribed valbenazine; however, its effect was minimal, and, secondary to the patient's disorganization, the patient often refused. The patient continued to have significant debility, including visual field restriction, ambulatory difficulty, and trouble completing activities of daily living. He was eventually discharged with blepharospasm unresolved. We would like to highlight that anti-dopaminergic medications carry a not insignificant risk of debilitating physical effects. We would like to encourage providers to weigh the appropriate risks and benefits for treatment when choosing to start an anti-dopaminergic medication.

**Categories:** Psychiatry
**Keywords:** antipsychotic, eps, movement disorder, side effect, tardive blepharospasm, tardive dyskinesia, td

## Introduction

Blepharospasm is defined by the persistent contraction of the muscles surrounding the eye, such as the orbicularis oculi, procerus, and corrugators [1]. It is diagnosed in the presence of bilateral, synchronous spasm of the orbicularis oculi, as well as one of the following: a movement that can be elicited that can abolish symptoms and/or increased blinking [2]. This persistent contracture is categorized as a dystonia, the etiology of which ranges from genetic [3] to acquired [4] and most often, idiopathic [5].

Tardive dyskinesia (TD) is a hyperkinetic disorder caused as a secondary effect of dopamine receptor-blocking medications, which could produce tics or tremors [6]. Movement disorders are frequently observed in the field of psychiatry, where dopamine-blocking agents are often used in the form of antipsychotics; however, they can also be observed when using other medications, such as metoclopramide, an antiemetic that also carries anti-dopamine receptor activity. TD is a long-term effect of antipsychotic use; however, these medications can produce other acute effects such as akathisia and acute dystonic reactions [7]. While most patients with TD present with predominantly dyskinetic symptoms (e.g., protruding tongue movements), some patients experience predominant dystonic symptoms (e.g., involuntary repetitive movements), which can include blepharospasm [8]. Because of the involuntary and repetitive movements, tardive dystonia can have a profound impact on someone's life, including their ability to complete daily activities. It warrants further investigation to discuss prevention and treatment.

By presenting a case about a 55-year-old male diagnosed with schizophrenia and treatment-resistant blepharospasm, our goal is to foster more awareness, as well as to highlight botulinum toxin as an effective treatment so that patients may have an improved quality of life.

## Case Presentation

A 55-year-old unmarried Black man, who was living in a group home for people with serious and persistent mental illness, received Social Security disability benefits and was supported in the community by his mother and sister. He had no reported family psychiatric history. His medical history was significant for asthma, diabetes mellitus, gastroesophageal reflux disease, and hypertension. He also had a remote history of illicit drug use (unknown type, frequency, or severity of use because he was estranged from his family at the time) and no reported history of trauma. He presented to the hospital with disorganized speech, disorganized thought, grandiose delusions, and notably, significant blepharospasm, on a pick-up order from his outpatient psychiatrist. In the community, he had been prescribed risperidone 1 mg twice daily; however, he had not been taking this medication consistently over the preceding three months, leading to his hospitalization. The patient was noted to exhibit grandiose delusions and significant negative symptoms,

**How to cite this article**
Amalfitano A, Snyder N, Leontieva L (November 02, 2026) Tardive Blepharospasm Secondary to Chronic Antipsychotic Treatment: A Case Report. Cureus 18(11): e119002. DOI 10.7759/cureus.119002

including poor hygiene and social withdrawal, prompting the recommendation for psychiatric hospitalization. He was admitted to the inpatient psychiatry unit for acute stabilization.

He had an over 30-year history of treatment with first- and second-generation antipsychotics for schizophrenia, including 234 mg of paliperidone's long-acting injectable given monthly, 6 mg of paliperidone orally per day, 4 mg of risperidone twice a day, 8 mg of perphenazine twice a day, and 10 mg of olanzapine once per day. It was not until 2014 that he presented to outpatient neurology for the first time, seeking treatment of his blepharospasm. On his initial presentation to neurology, he was described as having dystonic postures that were most severe in the neck and left arm, and milder in the orbicularis oculi and right arm. It was concluded at this time that it was secondary to antipsychotic medication administration, rather than idiopathic.

Over the years, the patient received monthly botulinum toxin treatment via the movement disorders clinic through the neurology department, with administration of an average of 50 units of botulinum toxin directly into the bilateral orbicularis oculi muscles. On documentation review, four months after receiving the medication, the patient was examined and found to have no blepharospasm and no blepharitis. However, the duration of the treatment effect was difficult to assess because the patient was nonadherent to appointments and medications. The patient started to receive injections as early as 2014, with his most recent injection in 2021. He was planned to receive botulinum toxin injections every three months via the movement disorder clinic in the neurology department. Since 2021, the patient was prescribed 40 mg of valbenazine per day for his blepharospasm; however, he was not consistent with taking it, and no improvement was noted regarding blepharospasm.

While on the inpatient psychiatry unit, the patient was restarted on valbenazine 40 mg daily for one week, and then it was increased to 80 mg daily. Neurology was consulted regarding medication recommendations in the context of dystonia. When evaluating, they attempted to complete a neurological examination; however, it was limited secondary to the patient not participating in active parts of the exam. They noted the patient was in a seated position, awake and alert, although not oriented to place. They noted the patient had blepharospasm bilaterally with his eyes closed for the majority of the encounter. They also noted other involuntary movements, such as occasional orolingual involuntary movements and stereotyped left deviation of the head with some rotatory component. His left arm was in the adduction position. He was able to move all extremities antigravitationally, and no resting tremors were appreciated. Neurology recommended optimizing valbenazine without further investigative imaging or lab studies.

Ophthalmology was consulted, but botulinum toxin treatments were not available. He required hands-on support from staff to assist with ambulation, and if he wished to see, he would physically hold his eyelids open.

The mental status exam showed a 55-year-old male who appeared older than his stated age. Often, he would lie in his room on his bed but, with prompting, would get up and perform necessary tasks. The patient required assistance with walking due to his inability to open his eyes. He would extend his neck backwards as far as possible for the opportunity to see out of the bottom slit of his eye, as that was as far as he was able to open his eyelids. He would walk with a shuffled stance and hold onto railings or the arms of a staff for direction. Passive movement of his arms indicated muscle stiffness without significant cog-wheeling. His speech was sparse, monotone, and with increased latency. On most days, his affect was euthymic and blunted. The thought process proved to be mostly illogical, with loose associations, delusions of grandeur, and delusions of reference, believing that he was communicating and receiving messages from others through "frequencies." He did not exhibit suicidal or homicidal ideation. Finally, his understanding of his condition and the judgments surrounding it were poor. He was not given other psychometric assessments.

Court-appointed treatment over objection was obtained during his hospitalization, and it was only after treatment with long-acting paliperidone, 256 mg to be given every month, that the patient became more adherent with other medications such as valbenazine. The patient was observed to have a more linear thought process and did not describe auditory or visual perceptual disturbances. He also did not describe delusions at the end of his hospitalization. Paliperidone was chosen, compared to other antipsychotic agents, due to its long-acting injectable form, as well as the patient's tolerance to risperidone in the past. Unfortunately, valbenazine offered minimal, if any, relief from his dystonic symptoms, as even after two weeks of treatment, the patient still had to hold his eyes open to see. The patient did not participate in individual psychotherapy while on the unit. For that reason, he was not referred for therapy in the outpatient setting. The patient was discharged taking paliperidone 256 mg intramuscularly every month, along with valbenazine 80 mg. He was referred to the movement disorders clinic through neurology to assess for the need for botulinum treatment. The patient was referred for psychiatric treatment at an outside facility in the outpatient setting.

## Discussion

Dystonia is best known as an acute side effect in the setting of antipsychotic use; however, in 1-2% of patients, it can present as a tardive syndrome [9]. Previous studies support that while tardive dystonia is rare, blepharospasm and cervical dystonia are amongst the most common presentations [8]. The

pathogenesis of tardive dystonia and blepharospasm is not fully understood. The most accepted theory lies in the imbalance between dopamine type 1 (D1) and dopamine type 2 (D2) receptors in the basal ganglia, leading to excessive D1 activity [10]. This is consistent with clinical observations showing decreased rates of TD with second-generation antipsychotic medication (e.g., clozapine), which has a lower preference for the D2 receptor [11].

The most important aspect that we wanted to highlight in our case was the careful cost-benefit analysis that must be done when deciding to continue patients on medication when they are exhibiting side effects. Without antipsychotic medication, our patient found it difficult to function in society without significant assistance. Even with treatment, the patient required great levels of supervision to maintain independence. Treatment options could have included daily oral antipsychotic medications, including olanzapine, clozapine, and aripiprazole. These medications have associations with adverse effects. Olanzapine is associated with significant metabolic adverse effects [12]. Clozapine is also associated with metabolic adverse effects and requires monitoring via blood work as frequently as weekly, although it carries less of a risk for extrapyramidal symptoms [12]. Aripiprazole is associated with extrapyramidal symptoms, something we were trying to avoid [12]. Given the patient's historical non-adherence with medication treatment in the past, none of these options seemed logical. Long-acting injectable formulations of medication were necessary in order to treat and maintain adherence. This, however, limits the treatments available, making the patient prone to significant side effects such as extrapyramidal symptoms, metabolic syndrome, and TD. Clozapine has not been trialed but may be an appropriate medication to consider given its lower propensity to cause TD [13].

In a paper by Pollak and Corllet, they describe the complex relationship between visual loss and psychosis, highlighting that as individuals lose sensory input, they must fill in the blanks with more assumptions about the outside world, which could lead to false inferences about the world or self, similar to that seen in psychotic illness [14]. This is yet another complication in the treatment of our patient and another risk that must be weighed against continued treatment with antipsychotic medications. Ultimately, continued antipsychotic treatment was warranted due to the level of impairment the patient faced without the medication.

Certain formulations of botulinum toxin have been indicated in the United States for the treatment of blepharospasm [15]. They work by binding to neuronal surfaces via the receptor-binding domain, which blocks the release of acetylcholine, causing flaccid paralysis [15]. The response rate to utilization of botulinum toxin is 92% [15]. Oftentimes, patients will experience dry eyes, blurred vision, tearing, ptosis, and ecchymosis. These adverse effects are self-limiting and typically mild [15]. Having botulinum toxin available in the hospital may have improved the patient's quality of life as well as his general trust in the medical field. This could have resulted in increased adherence to medication regimens. Future research could focus on the efficacy of utilizing botulinum toxin in an inpatient setting and patient adherence with psychiatric medications.

## Conclusions

In conclusion, we present a case of a 55-year-old man with significant tardive blepharospasm in the setting of decades of treatment with antipsychotic medication. This case is an important learning opportunity for future clinicians to be aware that anti-dopaminergic medications carry a risk of debilitating physical effects and to weigh the appropriate risks and benefits for treatment when choosing to start a patient on an anti-dopaminergic medication. We look forward to research pertaining to the use of botulinum toxin for the treatment of blepharospasm and its effects on adherence to psychiatric medications.

## Additional Information

### Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

**Concept and design:** Nicholas Snyder, Anthony Amalfitano, Luba Leontieva

**Drafting of the manuscript:** Nicholas Snyder, Anthony Amalfitano

**Critical review of the manuscript for important intellectual content:** Nicholas Snyder, Anthony Amalfitano, Luba Leontieva

### Disclosures

**Human subjects:** Informed consent for treatment and open access publication was obtained or waived by all participants in this study. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have

declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

## References

1. Hallett M, Evinger C, Jankovic J, Stacy M: Update on blepharospasm: report from the BEBRF International Workshop. Neurology. 2008, 71:1275-82. 10.1212/01.wnl.0000327601.46315.85
2. Defazio G, Hallett M, Jinnah HA, Berardelli A: Development and validation of a clinical guideline for diagnosing blepharospasm. Neurology. 2013, 81:236-40. 10.1212/WNL.0b013e31829bfdf6
3. Klein C: Genetics in dystonia. Parkinsonism & Related Disorders. 2014, 20:137-42. 10.1016/S1353-8020(13)70033-6
4. Friedman J, Standaert DG: Dystonia and its disorders. Neurologic Clinics. 2001, 19:681-705. 10.1016/s0733-8619(05)70040-2
5. Grandas F, Elston J, Quinn N, Marsden CD: Blepharospasm: a review of 264 patients . J Neurol Neurosurg Psychiatry. 1988, 51:767-72. 10.1136/jnnp.51.6.767
6. Waln O, Jankovic J: An update on tardive dyskinesia: from phenomenology to treatment . Tremor Other Hyperkinet Mov (N Y). 2013, 3:10.7916/D88P5Z71
7. Kalniunas A, James K, Pappa s: Prevalence of spontaneous movement disorders (dyskinesia, parkinsonism, akathisia and dystonia) in never-treated patients with chronic and first-episode psychosis: a systematic review and meta-analysis.. BMJ Mental Health. 2024, 27:1-10.
8. Burke RE, Fahn S, Jankovic J, Marsden CD, Lang AE, Gollomp S, Ilson J: Tardive dystonia: late-onset and persistent dystonia caused by antipsychotic drugs. Neurology. 1982, 32:1335-46. 10.1212/wnl.32.12.1335
9. Yassa R, Nair V, Dimitry R: Prevalence of tardive dystonia. Acta Psychiatr Scand. 1986, 73:629-33. 10.1111/j.1600-0447.1986.tb02735.x
10. Trugman JM: Tardive dyskinesia: diagnosis, pathogenesis, and management. . Neurologist. 1998, 4:180-7. 10.1097/00127893-199807000-00002
11. Correll CU, Leucht S, Kane JM: Lower risk for tardive dyskinesia associated with second-generation antipsychotics: a systematic review of 1-year studies. Am J Psychiatry. 2004, 161:414-25. 10.1176/appi.ajp.161.3.414
12. Stroup TS, Gray N: Management of common adverse effects of antipsychotic medications . World Psychiatry. 2018, 17:341-56. 10.1002/wps.20567
13. Pardis P, Remington G, Panda R, Lemez M, Agid O: Clozapine and tardive dyskinesia in patients with schizophrenia: a systematic review. J Psychopharmacol. 2019, 33:1187-98. 10.1177/0269881119862535
14. Pollak TA, Corlett PR: Blindness, psychosis, and the visual construction of the world . Schizophr Bull. 2020, 46:1418-25. 10.1093/schbul/sbz098
15. Hellman A, Torres-Russotto D: Botulinum toxin in the management of blepharospasm: current evidence and recent developments. Ther Adv Neurol Disord. 2015, 8:82-91. 10.1177/1756285614557475