Content available at: https://www.ipinnovative.com/open-access-journals

IP Indian Journal of Neurosciences

Journal homepage: https://www.ijnonline.org/

Case Report

A case of conversion disorder presenting with blepharospasm and hyperesthesia

Vaibhav Oberoi[1]*, Sidharth Mahajan[1], Anureet Kaur Sekhon[2], Ashish Sarangi[3], Jayant Chawla[4]

[1]*Government Medical College, Amritsar, Punjab, India*
[2]*Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar, Punjab, India*
[3]*University of Missouri-Columbia School of Medicine, Columbia, Missouri, United States, India*
[4]*KD Ganesha Hospital Private Limited, Amritsar, Punjab, India*

ARTICLE INFO

Article history:
Received 25-03-2024
Accepted 11-04-2024
Available online 27-06-2024

Keywords:
Conversion disorder
Blepharospasm
Psychogenic symptoms
Psychotherapy

ABSTRACT

This case report highlights a woman in her 40s presenting with Blepharospasm and hyperesthesia, initially managed as a neurological disorder. Despite conventional treatments, her symptoms persisted. Extensive evaluations excluded organic causes, prompting consideration of psychogenic etiology. A placebo trial unexpectedly led to significant improvement, prompting psychiatric evaluation revealing grief and emotional distress. Behavioral interventions resulted in the gradual resolution of symptoms. It underscores the importance of considering psychosocial factors in patients presenting with medically unexplained symptoms, facilitating early diagnosis and appropriate management. This can alleviate patient distress, optimize resource utilization, and enhance clinical outcomes.

1. Introduction

Conversion disorder is a somatic symptom disorder characterized by significant distress and psychosocial impairment caused by neurologic symptoms like paralysis, weakness, and visual disturbances that cannot be entirely attributed to another pathologic condition. It is involuntary Production of neurological symptoms.[1] Conversion disorder is also known as functional neurological symptom disorder. The clinical symptoms are usually not fully explained by a neurological condition. Patients stay calm and unconcerned when describing their symptoms, referred to as "la belle indifference".[2] Females in the 2nd and 3rd decades are most commonly affected by this disorder. Patients may present with motor and/or sensory deficits affecting single or multiple areas of the body. Blepharospasm is a dystonia characterized by muscle contractions causing involuntary movements. It can be idiopathic, hereditary, or acquired. Pharmacologic management involves levodopa or antimuscarinics and botulinum toxin injections.[3] Here, in this case report, we describe a case of Conversion disorder presenting with Blepharospasm and Hyperesthesia.

2. Case Presentation

A woman in her late 40s presented with severe left-sided hemicranial headaches occurring 2-3 times monthly, accompanied by flashing lights and nausea, albeit no vomiting, decreased vision, or sleep disturbances. Neurological examination revealed normal findings, including visual field and acuity, with no optic disc edema noted. 3D MRI imaging depicted no significant abnormalities. Blood tests, including complete blood count, kidney and liver function tests, thyroid and lipid profiles,

* *Corresponding author*.
E-mail address: dr.satish.oberoi@gmail.com (V. Oberoi).

https://doi.org/10.18231/j.ijn.2024.020

were all within normal ranges, except for low levels of vitamin B-12 (119 pg/ml) and vitamin D (12.65 ng/ml), alongside mildly elevated ESR (28mm).

Initially managed with topiramate 25 twice daily, Non-steroidal Anti-inflammatory Drug as needed, and rizatriptan 10 mg as needed, the patient returned eight months later, reporting sudden inability to open her left eyelid and hyperesthesia over the left eyelid while abroad. Two months post-acute episode, she presented to the outpatient department with a persistent headache, inability to raise her left eyelid, and left eyelid tenderness. Neurological examination ruled out ptosis, and AcetylCholine Receptor antibodies were <0.11 nmol/l. Imaging studies, including MRI brain and CT angiogram brain, exhibited no abnormalities, ruling out stroke. Her treatment regimen was adjusted to sodium valproate 250 mg, escitalopram for migraine prevention, and pregabalin and benztropine for Blepharospasm and hyperesthesia, with a follow-up appointment scheduled in 10 days. Due to no improvement in symptoms, the patient was planned for botulinum injection therapy and supratrochlear nerve block. Considering financial constraints, a placebo trial was initiated, coupled with motivating the patient to attempt opening her eyes. Surprisingly, significant improvement was noted post-trial, with the disappearance of left eye Hyperesthesia and initiation of left eyelid lifting. Following extensive evaluation excluding neurological and ocular causes of Blepharospasm, the patient's condition was deemed likely psychogenic, possibly triggered by the recent stressor of a fight with her daughter that happened two months back. Psychological assessment uncovered feelings of self-depreciation, inadequacy, and unresolved grief related to emotional distress due to her daughter, although not meeting the diagnostic criteria of Clinical Depression. She is now following up with behavioral therapy and psychotherapy, leading to gradual improvement in Blepharospasm, particularly during therapy sessions.

3. Discussion

According to the Diagnostic and Statistical Manual of Mental Disorders-5-Text Revision, the term "conversion disorder" has been changed to "functional neurological syndrome".[4] In this disorder, patients present with neurological symptoms that a neurological condition cannot fully explain. When presenting symptoms, patients are usually calm and unconcerned. Some of the typical clinical findings seen in patients with conversion disorder are functional paralysis with normal deep tendon reflexes, psychogenic non-epileptic seizures, functional dystonias where symptoms persist in sleep and often with severe pain, functional tremor, functional visual disturbances, and functional hearing loss. The DSM-5 diagnostic criteria include 1) Presence of one or more neurological symptoms. 2) Clinical features cannot be better explained by another medical disorder. 3) Symptoms cause psychosocial impairment or significant distress.

The management of Blepharospasm involves treating the underlying cause, if any. Pharmacologic interventions involve antimuscarinics and Botulinum toxin injections. Surgical management includes myectomy, in which a part of the overactive eye muscle is removed.[5–7] The treatment of Conversion Disorder consists of cognitive behavioral therapy, talk therapy, and physical therapy. The diagnosis and management of associated comorbid psychiatric conditions may improve patient outcomes. Medical therapeutics such as Selective Serotonin Reuptake Inhibitors and muscle relaxants may be helpful in treating underlying conditions of depression or anxiety and muscle spasms, respectively.[8]

Our patient, who was following up for the treatment of migraine, showed up with the inability to open the left eyelid and severe pain for the past two months. The presentation looked like an organic disorder. However, the lack of any significant laboratory findings, including a normal 3D MRI brain with CT angiography Brain, standard Acetylcholine Receptor antibody assay, and insignificant drug history, helped rule out stroke, myasthenia gravis, and drug-induced Blepharospasm.[9] Due to the lack of response to benztropine and pregabalin, the patient was scheduled for supratrochlear nerve block and botulinum toxin injection. The response that we received after the placebo and motivating the patient to open the eye in the operating room was very significant.[10–12] This considerable improvement sprouted the idea of a psychiatric evaluation for the patient. Upon psychiatric referral, the patient was diagnosed with a conversion disorder with some symptoms of clinical depression.

4. Conclusion

This case of a respected woman in her fourth decade presenting with Blepharospasm and severe pain has forced us to elaborate on the clinical spectrum of the disease. We want to reinforce that psychosocial aspects should also be included while examining these patients. It is essential to consider the possibility that Blepharospasm could be a manifestation of an underlying psychiatric disorder. This shall aid in an early diagnosis and, therefore, a significant reduction in patient stress and anxiety. This approach will also save a lot of resources and time that could be effectively used in treating other needful patients.

5. Supplementary Materials

There is no supplementary material published in the Manuscript.

6. Author Contributions

We take full responsibility for my substantial contributions to this work. This includes involvement in the conception and design of the study, acquisition and analysis of data, interpretation of results, and drafting of the manuscript. Additionally, We have been actively engaged in substantively revising the work to ensure its accuracy and integrity. Our dedication and efforts have played a pivotal role in shaping the outcome of this project.

7. Conflicts of Interest

The authors declare no conflicts of interest.

8. Source of Funding

There is no administrative and technical support or donations in kind; grants, funds, etc.

References

1. Galli S, Tatu L, Bogousslavsky J, Aybek S. Conversion, Factitious Disorder and Malingering: A Distinct Pattern or a Continuum? *Front Neurol Neurosci*. 2018;42:72–80. doi:10.1159/000475699.
2. Gokarakonda SB, Kumar N. La Belle Indifference. Treasure Island (FL): StatPearls Publishing; 2024.
3. Marjama J, Tröster AI, Koller WC. Psychogenic movement disorders. *Neurol Clin*. 1995;13(2):283–97.
4. First MB, Clarke DE, Yousif L, Eng AM, Gogtay N, Appelbaum PS, et al. DSM-5-TR : Rationale, Process, and Overview of Changes. *Psychiatric Services*. 2023;74(8):869–75.
5. Hassell TJW, Charles D. Treatment of Blepharospasm and Oromandibular Dystonia with Botulinum Toxins. *Toxins (Basel)*. 2020;12(4):269. doi:10.3390/toxins12040269.
6. Hallett M. Blepharospasm: recent advances. *Neurology*. 2002;59(9):1306–12.
7. Pariseau B, Worley MW, Anderson RL. Myectomy for blepharospasm 2013. *Curr Opin Ophthalmol*. 2013;24(5):488–93.
8. Hamm AR. Identification and initial treatment of involuntary psychogenic movement (conversion) disorder in a 25-year-old male patient. *Clin Case Rep*. 2021;9(10):4978. doi:10.1002/ccr3.4978.
9. Inada T, Yagi G. Current topics in neuroleptic-induced extrapyramidal symptoms in Japan. *Keio J Med*. 1996;45(2):95–9.
10. Das S, Sreedharan RP, Remadevi PS, Saji CV. Psychogenic Blepharospasm: A Diagnostic Dilemma. *Shanghai Arch Psychiatry*. 2016;28(6):346–8.
11. Factor SA, Podskalny GD, Molho ES. Psychogenic movement disorders: frequency, clinical profile, and characteristics. *J Neurol Neurosurg Psychiatry*. 1995;59(4):406–12.
12. Marjama J, Tröster AI, Koller WC. Psychogenic movement disorders. *Neurol Clin*. 1995;13(2):283–97.

Author biography

Vaibhav Oberoi, House Physician https://orcid.org/0009-0003-4358-494X

Sidharth Mahajan, House Physician https://orcid.org/0009-0009-7261-5964

Anureet Kaur Sekhon, Physician https://orcid.org/0009-0000-1003-1378

Ashish Sarangi, Assistant Professor https://orcid.org/0000-0003-3176-4006

Jayant Chawla, Professor https://orcid.org/0009-0005-1548-0371

Cite this article: Oberoi V, Mahajan S, Sekhon AK, Sarangi A, Chawla J. A case of conversion disorder presenting with blepharospasm and hyperesthesia. *IP Indian J Neurosci* 2024;10(2):101-103.