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Case Report

Bilateral Ptosis - A rare presentation of conversion disorder

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Abstract

Background: Palpebral ptosis is defined as drooping of the upper eyelid due to partial or total reduction in the levatorpalpebrae function. Here we present a case of conversion disorder presenting as bilateral ptosis. Not much literature is available on the same.
Case Presentation: A 17-year-old girl presented to the Emergency Department complaining of bilateral drooping of the eyelids since morning, which was gradual in onset and progressive in nature. The primary survey was unremarkable. Neurological examination showed normal higher mental functions, normal sensations, normal deep tendon reflexes and normal muscle strength and tone. The diagnosis of factitious disorder was considered and the girl was diagnosed to have psychogenic pseudo ptosis. She was referred to the child psychiatry department, where after consultation, she was suspected to have conversion disorder. Subsequently, counselling sessions were started for her.
Conclusions: Some examples of conversion disorder include blindness, paralysis, dystonia, hallucinations, swallowing difficulties, motor ties, difficulty walking and dementia. However, the understanding of conversion disorder is still limited and not fully understood. The maximum incidence of conversion disorder is seen in children from 10-15 years and women, who have a 200% more chance of developing the disorder than men. Principally, the AChR antibody test, measuring the concentration of the antibody present, showed results that were higher by 0.01 nmol/L. The AChR antibody is the most common antibody found in Myasthenia Gravis patients. The anti-muscle specific kinase antibody (MuSK) test was also done but found to be negative. In neurology practice mechanical tests were like the Magnetic Resonance Imaging (MRI) of the brain and spine are the first line of investigations. Electromyography tests were done which showed normal nerve conduction velocities similar to an earlier case report of a 14-year-old girl. Previous studies have shown full recovery in up to 90% of the patients with early diagnosis and treatment. In the case presented here, a favourable response was achieved with antidepressants and behavioural therapy. Pseudo ptosis should be kept in mind in patients with psychiatric disorders after organic causes are ruled out.
Keywords: Ptosis, bilateral ptosis, conversion disorder, anxiety, ocular myasthenia.

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1. Introduction

Palpebral ptosis is defined as drooping of the upper eyelid due to partial or total reduction in the levatorpalpebrae function.

It may be congenital or acquired. Aetiology of acquired ptosis can be myogenic, neurogenic, Apo neurotic, traumatic or mechanical. Myasthenia Gravis is one of the most common causes of bilateral ptosis which can present with ptosis or diplopia or both. [1]

Conversion disorder is a rare cause of bilateral ptosis. There isn't enough literature present and there are only a handful of cases reported throughout the world. We present a case of conversion disorder presenting as bilateral ptosis.

2. Case Report

A 17-year-old girl presented to the Emergency Department complaining of bilateral drooping of the eyelids since morning, which was gradual in onset and progressive

in nature. Her symptoms had been worsening throughout the day and she presented to us when she started having double vision. History revealed that she had been suffering from redness of the left eye for the past 5 days and was being treated for viral conjunctivitis.

The primary survey was unremarkable. Neurological examination showed normal higher mental functions, normal sensations, normal deep tendon reflexes and normal muscle strength and tone. She had normal eye movements and no abnormality was noticed in the vision. Repetitive eye closure resulted in bilateral ptosis. No redness was observed at the time of the presentation. Since she was asymptomatic, she was reassured and advised to follow up in the Neurology and Opthalmology Out-patient department (OPD).

The ophthalmologic examination did not reveal any abnormality. On following up in the neurology OPD, she underwent MRI brain and spine, complete haemogram, liver function test (LFT), Renal Function Test (RFT), Creatinine Kinase (CK), Pyruvic acid, acetylcholine receptor antibody (AChR) test, the anti-musk antibody test and Repetitive Nerve Stimulation (RNS) test.

The MRI brain was normal. MRI Spine showed a loss of cervical lordosis. RNS test and other blood tests were also within the normal range. However, the AChR antibody was 0.05 nmol/L (normal range- 0.0-0.4 nmol/L). Electromyography revealed normal nerve conduction velocities. The ice pack test was positive.

Even though the tests were inconclusive, she was started on Pyridostigmine in a dose of 1mg/kg/day dose on the basis of the AChR antibodies report and high clinical suspicion of ocular myasthenia. Two days later, she stopped the medication due to the development of severe leg pain, possibly an adverse effect of the medication.

The eye drooping in both the eyes continued along with the leg pain for which she was prescribed symptomatic management. There was severe trouble walking and the patient could hardly get up from the bed. She was then started on methylprednisolone at 1mg/kg/day and pyridostigmine was restarted at 0.5mg/kg/day. 15 days from the onset of symptoms she had one episode of catatonia. She was rushed to the Emergency where with the symptomatic treatment she improved within a few hours.

She was then referred to the Neuropsychiatry department, where after consultation, she was suspected to have conversion disorder. Subsequently, counselling sessions were started for her. During the consultations, it was noticed that she had always been an anxious child. It was realized that the patient had comparison issues with her sibling and felt an immense pressure about her career. The psychological evaluation revealed normal intellectual capacity and school performance. There was no family history of psychological disorders. She was started on escitalopram 10mg once a day and alprazolam 0.5 mg at bedtime. Even after 2 weeks of therapy, no improvement was noticed in the ptosis.

Neostigmine test, anti-musk antibodies and AChR antibodies were repeated. All tests were again found to be negative. Botox injection was also tried but did not show any improvement. CT scan of the face was also reported normal. The repeated neurologic evaluation confirmed the normal strength of the eyelid muscle during the ptosis episodes. The parents decided to try alternative medicine wherein Acupuncture and Reiki therapy provided some temporary relief in eye drooping. The ptosis was episodic and used to improve on its own.

Because of these observations, the diagnosis of factitious disorder was considered and the girl was diagnosed to have psychogenic pseudo ptosis. She was taken under the treatment of a child psychiatrist. Pyridostigmine was stopped and she was started on Escitalopram along with counselling and behavioural therapy.

She was even given ocular crutches but it was not of much use. Subsequently, she scored very well in her exams and joined the institution of her choice for higher studies. She continues to be on therapy; her episodes of ptosis have reduced markedly but still continue to occur infrequently.

3. Discussion

Conversion disorder is a neurological condition that is caused due to psychological distress.[1] It is also known as Functional Neurological Symptoms disorder and is an uncommon mental disorder.[2] Mental pain is translated into physical symptoms such as blindness or paralysis.[1] The symptoms cannot be explained through general medical conditions. Palpebral ptosis is a condition where the patient experiences drooping of eyelids. [3] Some examples of conversion disorder include blindness, paralysis, dystonia, hallucinations, swallowing difficulties, motor ties, difficulty walking and dementia. However, the understanding of conversion disorder is still limited and not fully understood.[4] The development of conversion disorder is biased towards obsessional personality, anxiety, depression and sexual abuse.[3]

The maximum incidence of conversion disorder is seen in children from 10-15 [3] years and women, who have a 200% more chance of developing the disorder than men.[5] The prevalence of conversion disorder ranges from 5% to 25% in psychiatric outpatients whilst only 1% to 3% of outpatient referrals to psychiatrists develop the disorder.[5] Among such patients, anxiety, depression, post-traumatic stress disorder (PTSD) and dissociative disorder were pre-occurring conditions.[6] Since the disorder is essentially psychosomatic, it is more commonly seen in population with lower socioeconomic status and education. Rural populations are found to be more susceptible to the

disorder than urban residents. Globally, third-world countries have a 31% more prevalence rate than developed countries.[5] For a particular individual, first degree female relatives of a person with an existing disorder are 14 times more likely to develop symptoms.[7]

Pseudo ptosis is a diagnosis of exclusion. Routine blood tests such as liver function tests (LFT), Renal Function Test (RFT), Creatinine Kinase (CK), and pyruvic acid test are usually normal. Previous case reports have also mentioned the use of lactic acid test [3] which was not performed in this case. Principally, the AChR antibody test, measuring the concentration of the antibody present, showed results that were higher by 0.01 nmol/L. The AChR antibody is the most common antibody found in Myasthenia Gravis patients. The anti-muscle specific kinase antibody (MuSK) test was also done but found to be negative. In 50% of the patients with ocular myasthenia, there are no AChR antibodies. Such cases are known as Seronegative Myasthenia Gravis. Seronegative myasthenia gravis has been recognized as an antibody-mediated disease, and recently antibodies to muscle specific kinase (MuSK) were demonstrated in the sera of patients with generalized seronegative myasthenia gravis.[8]

In neurology practice mechanical tests were like the Magnetic Resonance Imaging (MRI) of the brain and spine is the first line of investigations. Electromyography tests were done which showed normal nerve conduction velocities similar to an earlier case report of a 14-year-old girl.[3] An ice pack test [9] was done which resulted to be mildly positive. After an oculoplastic consultation, the patient was provided a Botox injection followed by a Face CT scan. It has been observed that neurotoxin application to the pre-tarsal orbicularis is effective in raising eyelid position and decreasing TPS asymmetry. However, no improvement was observed in this patient [10].

Recurrent neurological examinations were executed which showed normal strength of eyelid muscles. An earlier case study also performed similar neurological examinations which revealed normal strength of eyelid muscles.[3]

Previous studies have shown full recovery in up to 90% of the patients with early diagnosis and treatment. In the case presented here, a favourable response was achieved with antidepressants and behavioural therapy. Pseudo ptosis should be kept in mind in patients with psychiatric disorders after organic causes are ruled out.

Conflict of Interest

There is no Conflict of Interest.

Declaration of interest

The authors do not have any declaration of interest.

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