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Case Report

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CASE REPORT: OLANZAPINE INDUCED BLEPHAROSPASM

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ABSTRACT

Olanzapine is an atypical (second generation) antipsychotic. Its common side effects are weight gain, metabolic disturbances including diabetes mellitus and dyslipidemia. Blepharospasm is an abnormal involuntary blinking or spasm of the eyelid muscles (orbicularis oculi, procures and corrugated superciliaris). Blepharospasm is an unusual side effect of Olanzapine and is thought to occur due to blockage of D2 dopamine receptor in the basal ganglia. We describe a case of 16 year old male, a case of seizure disorder since 15 years in remission on antiepileptic's. The patient developed psychotic features in the form of auditory hallucinations, persecutory delusions and agitated behaviour for which he was started on 2.5 mg olanzapine. Four months after initiation of olanzapine, the patient developed excessive, involuntary blinking movements of both eyelids. This symptom could have been the result of olanzapine therapy. However, since blepharospasm is an infrequent side effect of olanzapine therapy, hence, the case report.

KEYWORDS: Olanzapine, blepharospasm, antipsychotics.

INTRODUCTION

Drug induced blepharospasm is a rare side effect characterized by abnormal involuntary blinking or spasm of the eyelids.[1] Tardive dystonia is a type of "tardive" movement disorder induced by antipsychotics and is characterized by involuntary muscle contraction, which may be tonic, spasmodic, patterned, or repetitive. Blepharospasm is a type of focal tardive dystonia characterized by chronic intermittent or persistent closure of the eyelids.[2] Atypical antipsychotics have less extrapyramidal side effects because of a weak dopamine D2 receptor binding affinity or a strong antagonistic effect to serotonin 5-HT2a receptor and have been known to cause less tardive dyskinesia than typical antipsychotics. Olanzapine is an atypical antipsychotic, research has suggested that Olanzapine has a higher affinity and occupancy rate for D2 receptor which may imply a higher than expected chance of inducing blephrospasm. Here we describe a case of a young boy who was diagnosed with brief psychotic disorder with seizure disorder who developed involuntary blinking on starting of olanzapine.

CASE REPORT

A 16yr old boy studying in Xth std was brought by his parents with chief complaints of involuntary blinking of both eyelids. Patient is a case of seizure disorder since 15yrs in remission since 2yrs is maintained on T.Leviteracetam and T.Clobazam and having a past history suggestive of brief psychotic episode 10 months back with psychotic features in the form of auditory hallucinations, persecutory delusions and agitated behaviour for which he was started on T. Olanzapine (2.5mg).Eight months after initiation of which the patient developed excessive, involuntary blinking movements of both eye lids. Patient was then started on T.Procyclidine (2.5mg) after which the symptom subsided gradually.

DISCUSSION

[3]Blepharospasm, the forcible closure of eyelids, is an infrequent consequence of neuroleptic treatment that when severe can interfere with the ability to walk, drive or work. It can be aesthetically distressing. Although the pathogenesis of drug induced blepharospasm is not known abnormalities of the cortical or subcortical neural pathways have been suggested.

[4]With regard to neuroleptics, it has been theorized that the likely mechanism is super sensitivity of striatal dopamine receptors, although this hypothesis has been extensively debated. Chronic use of these agents may lead to alteration of the normal balance between D1 and D2 receptors which could cause striatal disinhibition of the thalamocortical pathway and consequent dystonia.[5] A previous positron emission tomography study suggested that decreased dopamine D2 receptor binding may be one of the predisposing factors leading to dysfunction of the motor circuit resulting in loss of broad inhibition of unwanted movements during an intended

movement in blepharospasm patients.[6] Unfortunately, these hypotheses do not address what is responsible for causing a proportion of patients treated with neuroleptics to be vulnerable to the development of blepharospasm and other dystonia's.

CONCLUSION

Psychotropic drugs can cause blepharospasm in some cases. This is a rare side effect hence psychiatrist must remain vigilant about the onset of blepharospasm with this medication and should consider minimal use of psychotropic medication as far as possible in patients with blepharospasm.

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