ISSN: 0975-8585

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Lithium-Induced Vertigo in a Tertiary Care Hospital in South India.

Sushil Kiran Kunder, Navin Patil*, Bharti Chogtu Magazine, A Avinash, Anurag Pathak, Avin S, and Smita Shenoy.

Department of Pharmacology, Kasturba Medical College, Manipal 576104, Karnataka, India.

ABSTRACT

Bipolar disorder is a disorder characterized by periods of depression and elevated mood. It is also known as manic-depressive illness or bipolar affective disorder (BPAD). The cause is unclear, with environmental and genetic factors playing key roles. Treatment includes medications like antipsychotics and mood stabilizers, and psychotherapy. Lithium is a commonly used mood stabilizer in the management of BPAD. It is known to cause a series of adverse effects like thyroid dysfunction, diabetes insidious, tremors, etc. This report showcases a case of bipolar disorder who was on Lithium and developed 3 episodes of vertigo, one month after starting therapy for the same.

Keywords: manic-depressive, bipolar, mood-stabilizer, giddiness, neurotoxicity, dizziness

Corresponding author

ISSN: 0975-8585

INTRODUCTION

About 1-3% of adults are affected by manic-depressive/bipolar disorder. Lithium is used for treatment of the manic phase of bipolar disorder. Lithium is associated with a battery of side effects like tremors, oedema, decreased thyroid function, nephrogenic diabetes insipidus, etc [1].

Vertigo is an acute illusion of self or surrounding motion due to variation in the vestibular input or central pathways [2].

It has been mentioned by Brown in 1976 that lithium causes vertigo [3,4].

This case report of Lithium-induced vertigo was collected as a part of adverse drug reaction monitoring programme in Kasturba Medical College, Manipal, Karnataka, India.

Case Report

A 42 year old lady, housekeeping staff by occupation, was diagnosed of bipolar disorder, severe depression, and was started on oral Lithium SR 400mg twice daily on 10/09/2014. She was later admitted with 3 months history of on/off vertigo, an episode a month, with the first onset of vertigo being 20/10/2014. It was associated with tinnitus in the left ear and swaying towards left side. The episode lasted for about 1- 2hours. There was no history of headache, fall or fever. Serum Lithium level was found to be low but was insignificant as patient had stopped the medication prior to admission. It was diagnosed as Lithium-induced vertigo. Tablet Lithium was however continued. Her condition improved when she was treated with oral Cinnarizine 76mg once daily and tablet Betahistine 16mg thrice daily for the same. On discharge, she was advised to start oral Quetiapine SR 100mg at bedtime, oral Bupropion SR 150mg once daily and oral Clonazepam 0.5mg at bedtime. The patient is also a case of retroviral illness, not on HAART. She is not on any other regular medication.

Serum Lithium level: 0.1 mmol/L as measured on 19/01/2015.

Causality assessment (Based on Naranjo's algorithm and WHO causality scale) – Possible.

DISCUSSION

The cause for lithium-induced vertigo is unknown. It may be due to neurotoxicity caused by lithium or hypotension due to Lithium-induced nephrogenic diabetic insipidus causing polyuria as listed by Brown in 1976 [3, 4].

Ideally, in such cases, monitoring of plasma lithium level has to be done. If the plasma concentration is more than normal, the dose has to be reduced. If the concentration is within normal limits, lithium has to be stopped and alternate drugs should be started to treat the condition.

In this case, plasma lithium level was monitored and found to be low as patient had stopped taking lithium before admission. So the drug was continued and she was advised regular follow up for plasma concentration monitoring.

CONCLUSION

Lithium-induced vertigo is an uncommon adverse effect. It affects regular day to day activities and affects quality of life. So, when Lithium is being prescribed to patient, vertigo as an adverse effect should be kept in mind.

REFERENCES

[1] Meltzer H. Antipsychotic agents and lithium. Katzung BG, Masters SB, Trevor AJ. Basic and Clinical Pharmacology. McGraw Hill. 12th edition. 513-7

[2] Walker MF, Daroff RB. Dizziness and vertigo. Longo, Fauci, Kasper, Hauser, Jameson, Loscalzo. Harrison's principles of internal medicine. McGraw Hill. 18th edition. 178

[3] Brown WT. Canadian Psychiatr Assoc J 1976;21:13-21
[4] DeQuardo JR, Tandon R. Otologic and ophthalmologic side effects. Keshavan MS. Drug-induced dysfunction in psychiatry. Hemisphere publishing Corporation. 1992:245