Bipolar Disorder: Open Access

OPEN ACCESS Freely available online

Mini Review

Role of Lamotrigine in Treatment of Bipolar Disorder

Arvind Dixit*

Department of Biosciences, Birla Institute of Technology – Mesra, India

INTRODUCTION

Monotherapy with lamotrigine has been proposed as a treatment for bipolar depression. It is not linked to weight gain and is less likely to produce drowsiness and neurocognitive side effects. It is well tolerated by the majority of patients. It does have the potential to cause serious rashes, although this is mitigated by careful dosage titration and close monitoring. It's also possible that the number of people who get a significant rash is lower than previously thought (in particular, when faster dosage titration was used). The rate presently appears to be around 0.1 percent.

However, the evidence for using lamotrigine to treat acute bipolar depression is inconsistent. On the plus side, one double-blind, placebo-controlled research with lamotrigine (50 mg/d, 200 mg/d, or placebo) in bipolar I depression (n = 195) found it to be effective [1]. Patients responded to 50 mg in 41% of cases, 200 mg in 51% of cases, and placebo in 26% of cases.

These good findings about lamotrigine, however, were offset by four negative studies, which were big, industry-funded, double-blind, placebo-controlled clinical trials looking at lamotrigine medication in acutely depressed bipolar I and II patients. There was no statistical difference between lamotrigine and placebo in any of the four experiments. As a result, the Food and Drug Administration did not approve lamotrigine for acute bipolar depression. However, a meta-analysis of these five studies indicated a slight improvement with an effect value of 0.27 [2]. Lamotrigine demonstrated a higher separation from placebo (0.47) in more severely sick patients (Hamilton 24 or more), owing to a reduced placebo effect in this group. If the baseline Hamilton was less than 24, lamotrigine was no better than placebo (0.07 effect size). A short observational research found superior results at lamotrigine blood levels about 4 ng/mL in another way to predicting response [3].

Lamotrigine's efficacy as a maintenance treatment is fairly strong. Lamotrigine was approved by the FDA for maintenance usage after two major, 18-month studies indicated efficacy. It was ineffective at preventing mania, although it did not raise the risk of mania when compared to placebo.

Lamotrigine has not been demonstrated to be effective in the treatment of acute mania, making it less appealing than lithium, quetiapine, or cariprazine because it does not cover the manic/hypomanic stages. It also doesn't seem to help with suicidal ideation or conduct. In fact, it comes with a warning concerning an elevated risk of suicidality, much like all anticonvulsants. However, its comparatively low risk of adverse effects may make it a first choice for some individuals, particularly if previous hypomanias were minor [4].

Lamotrigine may also be worth considering in women who are planning to start a family. Lamotrigine has the lowest teratogenic risk of any antiepileptic medicine, ranging from 1% to 4%. Orofacial cleft anomalies had an odds ratio of 1.3 when compared to controls in a large observational research [5]. If these women are prescribed lamotrigine after carefully assessing their options, it is important to keep a close eye on their serum levels because dose and serum concentration change considerably depending on the stage of pregnancy.

REFERENCES

1. Calabrese JR, Bowden CL, Sachs GS, et al, for the Lamictal 602 Study Group. Double-blind placebo-controlled study of lamotrigine monotherapy in outpatients with bipolar I depression. J Clin Psychiatry 1999; 60:79-88.
2. Calabrese JR, Bowden CL, Sachs, G, et al. A placebo-controlled 18-month trial of lamotrigine and lithium maintenance treatment in recently depressed patients with bipolar I disorder. J Clin Psychiatry 2003; 64:1013-1024
3. Dolk H, Wang H, Loane M, et al. Lamotrigine use in pregnancy and risk of orofacial cleft and other congenital anomalies. Neurol 2016; 86:1716-1725.
4. Geddes JR, Burgess S, Hawton K, et al. Long-term lithium therapy for bipolar disorder: systematic review and meta-analysis of randomized controlled trials. Am J Psychiatry 2004; 161:217-222.
5. Kesebir S, Akdeniz F, Demir A, Bilici M. A comparison before and after lamotrigine use in long-term continuation treatment: effect of blood level. J Mood Disord 2013; 3:47-51.

***Correspondence to:** Arvind Dixit, Department of Biosciences, Birla Institute of Technology – Mesra, India, E-mail: khairatif@gamail.com

Received: October 31, 2021, **Accepted:** November 22, 2021, **Published:** November 29, 2021

Citation: Dixit A (2021) Role of Lamotrigine in Treatment of Bipolar Disorder. Bipolar Disord 7: 164. doi:10.35248/2472-1077.21.7.164.