

## Efficacy of Celecoxib Adjunct Treatment on Bipolar Disorder: Systematic Review and Meta-Analysis

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**Abstract :** Objective: Performed a systematic review and meta-analysis to evaluate the potential effect of the cyclooxygenases (Cox)-2 inhibitor Celecoxib adjunct treatment in Bipolar Disorder (BD), through of randomized controlled trials. Method: A search of the electronic databases was proceeded, on MEDLINE, EMBASE, Scopus, Cochrane Central Register of Controlled Trials (CENTRAL), Biomed Central, Web of Science, IBECs, LILACS, PsycINFO (American Psychological Association), Congress Abstracts, and Grey literature (Google Scholar and the British Library) for studies published from January 1990 to February 2018. A search strategy was developed using the terms: 'Bipolar disorder' or 'Bipolar mania' or 'Bipolar depression' or 'Bipolar mixed' or 'Bipolar euthymic' and 'Celecoxib' or 'Cyclooxygenase-2 inhibitors' or 'Cox-2 inhibitors' as text words and Medical Subject Headings (i.e., MeSH and Emtree) and searched. The therapeutic effects of adjunctive treatment with Celecoxib were analyzed, it was possible to carry out a meta-analysis of three studies included in the systematic review. The meta-analysis was performed including the final results of the Young Mania Rating Scale (YMRS) at the end of randomized controlled trials (RCT). Results: Three primary studies were included in the systematic review, with a total of 121 patients. The meta-analysis had significant effect in the YMRS scores from patients with BD who used Celecoxib adjuvant treatment in comparison to placebo. The weighted mean difference was 5.54 (95%CI=3.26-7.82);  $p < 0.001$ ;  $I^2 = 0\%$ . Conclusion: The systematic review suggests that adjuvant treatment with Celecoxib improves the response of major treatments in patients with BD when compared with adjuvant placebo treatment.

**Keywords :** bipolar disorder, Cox-2 inhibitors, Celecoxib, systematic review, meta-analysis

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