

The Efficacy of Lithium vs. Valproate on Bipolar Patients and Their Sexual Side Effect: A Meta-Analysis of 4159 Patients

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Abstract : Background: Bipolar disorder, formerly known as manic depression, is a mental health status that leads to extreme mood swings that include emotional lows (depression) and highs (mania or hypomania). This systematic review and meta-analysis aimed to assess the safety and efficacy of lithium versus valproate among bipolar patients. Methods: A computer literature search of PubMed, Scopus, Web of Science, and Cochrane Central Register of Controlled Trials was conducted from inception until June 2022. Studies comparing lithium versus valproate among bipolar patients were selected for the analysis, and all relevant outcomes were pooled in the meta-analysis using Review Manager Software. Results: 11 Randomized Clinical Trials were included in this meta-analysis with a total of 4159 patients. Our meta showed that lithium was superior to valproate in terms of Young Mania Rating Scale (YMRS) (MD = 0.00 with 95% CI, (-0.55 - 0.55; I2 = 0%), P = 1.00). The results of the Hamilton Depression Rating Scale (HDRS) showed that the overall effect favored the valproate treated group (MD = 1.41 with 95% CI, (-0.15 - 2.67; I2 = 0%), P = 0.03). Concerning the results of the Montgomery-Asberg Depression Rating Scale (MADRS), the results showed that the lithium was superior to valproate (MD = 0.03 with 95% CI, (-0.80 to 0.87; I2 = 40%), P = 0.94). In terms of the sexual side effect, we found that the valproate was superior to lithium (RR 1.19 with 95% CI, (0.74 to 1.91; I2 = 0%), P = 0.47). The lithium-treated group was superior in comparison to valproate treated group in terms of Abnormal Involuntary Movement Scale (AIMS) (MD = -0.03 with 95% CI (-0.38 to 0.32; I2 = 0%), P = 0.87). The lithium was more favorable in terms of Simpson-Agnes scale (MD = -0.40 with 95% CI, (-0.86 to 0.06; I2 = 0%), P = 0.09). The results of the Barnes akathisia scale showed that the overall effect of the valproate was more favorable in comparison to lithium (MD = 0.05 with 95% CI, (-0.12 to 0.22; I2 = 0%), P = 0.57). Conclusion: Our study revealed that on the scales of efficacy Lithium treated group surpassed Valproate treated group in terms of Young Mania Rating Scale (YMRS), Abnormal Involuntary Movement Scale (AIMS) and Simpson-Agnes scale, but valproate surpassed it in Barnes Akathisia scale. Furthermore, on the scales of depression Hamilton Depression Rating Scale (HDRS) showed that the overall effect favored Valproate treated group, but Lithium surpassed valproate in terms of Montgomery-Asberg Depression Rating Scale (MADRS). Valproate surpassed Lithium in terms of sexual side effects.

Keywords : bipolar, mania, bipolar-depression, sexual dysfunction, sexual side effects, treatment

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