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EFFECT OF FOLIC ACID ADD-ON TREATMENT IN PATIENTS WITH ACUTE MANIA ON CLINICAL SYMPTOMS AND URINARY 6-SULFATOXYMELATONIN: DOUBLE BLIND PLACEBO-CONTROLLED TRIAL

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Introduction: Cyclic changes in symptomatology, sleep disorders and changes in body temperature in bipolar disorder suggest a circadian rhythm disorder and its most important regulator, melatonin. Folate is both a melatonin enhancer and has been shown to be lower in manic patients.

Objectives: To investigate the association between melatonin level (by its most important metabolite, urinary 6-sulfatoxymelatonin) and clinical score of bipolar patients after folate supplementation of their medication.

Methods: Forty eight patients (who had at least one manic episode based on DSM-IV) were included in the study and out of these patients 8 patients dropped out during the study due to changes in diagnosis and 40 were randomized to group A(21 patients ,folic acid+lithium+resperidone) and group B(19 patient, placebo +lithium+resperidone). Also 8 controls were selected for comparison of urinary 6 sulfatoxymelatonin levels. Morning Urinary 6 sulfatoxy melatonin and Young Mania Rating Scale were measured in the beginning and at the end of the first month .

Results: There were significant differences between group A and B in the alteration of level of urinary 6-sulfatoxymelatonin measured during the study period(11.7 ± 13.4 Vs -6 ± 16.2 $p < 0.001$) both groups had significantly lower 6MT than controls and this persisted till the end of the first month in both groups. Significant difference was seen between alteration of YMRS in two groups(34.5 ± 3.9 Vs 30.1 ± 3.8 $p < 0.001$).

Conclusion: Our findings showed that folic acid may be effective as an adjunct to main mania treatment, and it may exert its effect partially due to changes in melatonin profile.