

Rapid treatment response of suicidal symptoms to lithium, sleep deprivation, and light therapy (chronotherapeutics) in drug-resistant bipolar depression

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Abstract

Background: One third of patients with bipolar disorder attempt suicide. Depression in bipolar disorder is associated with drug resistance. The efficacy of antidepressants on suicidality has been questioned. Total sleep deprivation and light therapy prompt a rapid and stable antidepressant response in bipolar disorder.

Method: We studied 143 consecutively admitted inpatients (December 2006-August 2012) with a major depressive episode in the course of bipolar disorder (DSM-IV criteria). Among the 141 study completers, 23% had a positive history of attempted suicide and 83% had a positive history of drug resistance. During 1 week, patients were administered 3 consecutive total sleep deprivation cycles (each composed of a period of 36 hours awake followed by recovery sleep) combined with bright light therapy in the morning for 2 weeks. At admission, patients who had been taking lithium continued it, and those who had not been taking lithium started it. Severity of depression was rated according to the Hamilton Depression Rating Scale (HDRS) (primary outcome measure) and Beck Depression Inventory (BDI).

Results: Two patients switched polarity. Among the 141 who completed the treatment, 70% achieved a 50% reduction in HDRS score in 1 week, which persisted 1 month after in 55%. The amelioration involved an immediate and persistent decrease in suicide scores soon after the first total sleep deprivation cycle ($F_{3,411} = 42.78$, $P < .00001$). A positive history of suicide attempts was associated with worse early life stress and with worse suicide scores at baseline, but it did not influence response. Patients with current suicidal thinking or planning responded equally well ($F_{3,42} = 20.70$, $P < .000001$). Remarkably, however, nonresponders achieved a benefit, with significantly decreased final scores also including suicidality ratings ($F_{3,120} = 6.55$, $P = .0004$). Self-ratings showed the same pattern of change. Previous history of drug resistance did not hamper response. During the following month, 78 of 99 responders continued to stay well and were discharged from the hospital on lithium therapy alone.

Conclusions: The combination of total sleep deprivation, light therapy, and lithium is able to rapidly decrease depressive suicidality and prompt antidepressant response in drug-resistant major depression in the course of bipolar disorder.