

Relapse of Mania due to Sleep Deprivation: A Case Report

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ABSTRACT

Background: Sleep disturbances in bipolar disorder exert negative impact. Here we report a case of bipolar disorder, who had manic relapse due to decreased sleep because of waking up early during religious festivities.

Case description: Mrs S is a 50-year-old married Muslim lady was diagnosed to have bipolar affective disorder (BPAD) for the past 25 years. Till now, she had about 8 to 10 manic episodes. From December 2017, she has remained euthymic, being compliant on tab. lithium 1200 µg/day (serum lithium level: 0.79 mmol/L). During her scheduled follow-up (May 25, 2019), she reported decreased need for sleep, grandiose ideas, increased psychomotor activity and energy from the start of Ramadan, about 20 days ago. During these 20 days, she woke up about 2 hours earlier to prepare food for family. She was compliant on lithium. Her Young Mania Rating Scale (YMRS) score on the first day was 19, showing manic levels and the Pittsburgh Sleep Quality Index (PSQI) was 12, showing poor sleep. Tab. olanzapine 30 µg/day was added to lithium 1200 µg/day. She showed gradual improvement in quality and quantity of sleep and was discharged after 2 weeks (June 09, 2019), with tab. lithium 1200 µg/day and tab. olanzapine 10 µg/day. The patient and her family were psychoeducated regarding the importance of sleep and compliance. During the next follow-up after 5 days, she showed improvements.

Conclusion: Sleep architecture changes in rapid eye movement (REM) sleep like shortened latency and increased density may contribute toward hypomanic/manic symptoms. In bipolar disorder, sleep disturbances even on one previous night may subsequently change the mood toward mania, in spite of having adequate serum lithium levels.

Clinical significance: Psychiatrists need to be vigilant regarding this and provide psychoeducation on sleep hygiene especially with sleep deprivation.

Keywords: Bipolar disorder, Mania, Relapse, Sleep deprivation.

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BACKGROUND

Sleep disturbances such as decreased overall sleep hours and quality during interepisodic period in patients with bipolar affective disorder (BPAD) may precipitate a manic or hypomanic episode. Any change in the circadian rhythm and sleep-wake cycle and quantity and quality of sleep can also incite such events.¹ Here we report a case of bipolar disorder who had manic relapse due to decreased quality and hours of sleeping due to religious festivities.

CASE DESCRIPTION

Mrs S. is a 50-year-old married Muslim lady. She is a homemaker and lived in a nuclear family at a semiurban town. She was diagnosed to have BPAD for the past 25 years. Till now, she has had about 8 to 10 manic episodes, all without psychotic symptoms. From 2018, she has been receiving treatment from us. Her last episode of mania was in December 2017 and was treated with tab. olanzapine 10 µg/day, gradually tapered and tab. lithium carbonate 1200 µg/day. From January 2018, she remained euthymic, being compliant on tab. lithium 1200 µg/day (serum lithium level: 0.79 mmol/L). During her last scheduled follow-up (May 25, 2019), she reported decreased need for sleep, grandiose ideas, and increased psychomotor activity and energy. These symptoms were from the start of Ramadan, about 20 days ago. In these 20 days, she woke up about 2 hours earlier, at around 4 A.M. to prepare food for her family. She used to go to sleep as usual at about 11 P.M. at night. She was compliant on lithium during this time. Her Young Mania Rating Scale (YMRS) score on the first day was 19, showing manic levels, and her Pittsburgh Sleep Quality Index (PSQI) was 12, showing poor sleep in the last 20 days. Tab. olanzapine 30 µg/day was added to lithium 1200 µg/day. She showed gradual improvement in quality and quantity of

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sleep and was discharged after 2 weeks (June 9, 2019), with tab. lithium 1200 µg/day and tab. olanzapine 10 µg/day. On discharge day, her YMRS score was 5 and PSQI score was 4, both showing significant improvement. Reviewing her previous episodes, we found that two of her previous manic episodes too coincided with the month of Ramadan, in August 2011 and May 2017. Family and patient were psychoeducated regarding the importance of sleep and compliance. During the next follow-up after 5 days, her YMRS score was 4 and PSQI was 3, showing maintained improvement. Since then she has been maintaining well and is on monthly regular follow-up, i.e., on 1200 µg of tab. lithium carbonate per day, with a serum lithium level of 1.28 mmol/L.

DISCUSSION

Sleep architecture changes like REM sleep, shortened REM latency, and increased REM density contribute toward hypomanic/manic symptoms. In BPAD, sleep disturbances even on one previous night may subsequently change the mood toward mania.¹ Changes in

social rhythms or circadian rhythms due to any reason, for example, Ramadan in our case, have been attributed as one of the reasons for relapse of mania.² Dehydration may result in lithium toxicity, but relapses due to variations in serum lithium levels owing to dehydration have not been reported.³ Reviews on health effects of Ramadan found that in general population no harms on physical health were attributed to Ramadan.^{4–6} It has also shown to have an overall positive effect on mental health.^{7,8} However, there may be more patients with alcohol withdrawal due to restriction in alcohol use during longer fasting periods and deterioration in psychopathology in patients with schizophrenia with metabolic syndrome have been noted before.^{9,10} Although general mood of patients with mood disorder improves, relapses in mood disorder may also increase, owing to fasting.^{2–4} Our patient had no signs of dehydration and had adequate lithium levels as shown by serum lithium levels before the relapse of mania. Thus, we consider sleep disturbance as the main reason for relapse.

CONCLUSION

Sleep deprivation due to various reasons which may include religious festivities may cause relapse or precipitation of manic or hypomanic symptoms in those suffering from bipolar illness, in spite of having adequate serum lithium levels.

CLINICAL SIGNIFICANCE

Psychiatrists need to be vigilant regarding this and provide psychoeducation on sleep hygiene and treatment compliance especially in situations which cause fasting and sleep deprivation.

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