

Case Report

Jet Lag and Relapse of Mania in Bipolar Affective Disorder

Naveen Thomas and S. Jayakrisnan

Christian Medical College, Vellore 632002, Tamil Nadu, India

Corresponding author: Naveen Thomas MD, DPM, DNB, Christian Medical College, Vellore 632002, Tamil Nadu, India, naveenlinda2002@yahoo.co.in

Abstract

People with bipolar disorders may have relapse of mood episodes associated with sleep deprivation and postpartum state. Jet lag can cause sleep problems resulting in relapse of mood episodes in vulnerable people. Melatonin synthesized in the pineal gland normalizes the circadian rhythm. So directly or indirectly it might prevent the recurrence of mood episodes in predisposed people. We are reporting the case of a 30-year old lady with a history of postpartum onset mood disorder who became manic after a flight to India from Ireland (German J Psychiatry 2010; 13 (2): 94-95).

Keywords: bipolar disorder, mania, jet lag, post partum state, and melatonin

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Introduction

Jet lag is a common problem, which causes minor difficulties like excessive sleepiness or insomnia. There are studies show that bipolar patients are at risk to develop an affective episode when they travel across time zones (Young 1995). This usually occurs after crossing at least two time zones by air (Hauri, 2005). Air travelers who fly westward complain of difficulty in maintaining sleep or early morning awakenings and eastward travelers complain of difficulties in initiating sleep (Hauri, 2005). In vulnerable people these sleep disturbances can precipitate a psychiatric episode (Wehr et al., 1987). Here the author is reporting a case in which bipolar affective disorder patient became manic after a trip to India from Ireland.

Case Report

Mrs. X is a 30-year-old qualified nurse from India working in Ireland for the last 1 year. Her initial affective episode was mania with psychotic symptoms at the age of 25 years im-

mediately after the first childbirth. For that she was on atypical antipsychotic olanzapine for one year and she responded well to treatment. Two years after the first episode she had a manic relapse following the second childbirth. This was also treated with atypical antipsychotics and she was asymptomatic for the next 2 years. In the past 1 year she had 2 depressive episodes and considering the past history of severe manic episodes patient was treated only with valproate (Yatham et al., 2005). She responded well to treatment and she was functioning well on valproate alone. On August second she came to India for her vacation. After 2 days of initial insomnia she developed manic syndrome with mood congruent psychotic symptoms while still on adequate and regular dose of valproate with adequate serum level of valproate. Patient became euthymic within 7 days on adding olanzapine.

Discussion

Sleep deprivation and post partum state are considered as significant precipitating factors for affective episodes. Both of these conditions are associated with decrease in melatonin

level in the body (Wehr, 1989, Sandyk, 1992). Melatonin is produced by the pineal gland in response to darkness. Melatonin is reported to have antidopaminergic action (Sandyk, 1992). So if melatonin level is low, it is possible that vulnerable people may develop mania or psychosis (Sandyk, 1992). Generally people who travel eastward get problems in sleep initiation because of phase delay in circadian rhythm (Hauri, 2005). Melatonin given in the evening hours will produce phase advance and reduce the sleep initiation difficulty (Herxheimer, 2002). So according to the authors administration of melatonin has been suggested as a preventive measure in similar situations especially for people with a history of postpartum mood episodes.

References

- Hauri PJ. The international classification of sleep disorders: diagnostic and coding manual 2nd ed. Westchester (IL): American Academy of Sleep Medicine; 2005.
- Herxheimer A, Petrie KJ. Melatonin for the prevention and treatment of jet lag. *Cochrane Database Systematic Review* 2002; 2: CD001520.
- Sandyk R. Postpartum psychosis and the pineal gland (letter). *International Journal of Neuroscience*. 1992; 62: 101–105.
- Wehr TA, Sack DA, Rosenthal NE. Sleep reduction as a final common pathway in the genesis of mania. *American Journal of Psychiatry* 1987; 144: 201-204.
- Wehr TA. Sleep loss: a preventable cause of mania and other excited states. *Journal of Clinical Psychiatry* 1989; 50: 8-16.
- Yatham LN, Kennedy SH, O'Donovan C, Parikh S, MacQueen G, McIntyre R, Sharma V, Silverstone P, Alda M, Baruch P, et al. Canadian Network for Mood and Anxiety Treatments (CANMAT) guidelines for the management of patients with bipolar disorder: consensus and controversies. *Bipolar Disorders*. 2005; 7:5-69.
- Young DM. Psychiatric morbidity in travelers to Honolulu, Hawaii. *Comprehensive Psychiatry* 1995; 36: 224-8.