

Insomnia treatment by Olanzapine

Is sleep state misperception a psychotic disorder?

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ABSTRACT

تعرض هذه الدراسة وجهة نظر جديدة عن حالة فقدان الإحساس أثناء النوم نناقش حالة مريضة حضرت إلينا وهي تعاني من حالة فقدان الإحساس عند النوم وتم تشخيص حالتها باضطراب توهمي. تبلغ المريضة 60 عام ومشكلتها الرئيسية عبارة عن أرق وهياج و أفكار انتحارية. تم إدخالها المستشفى وتحويلها في جناح الطب النفسي بناءً على المعلومات التي تم الحصول عليها من أسرتها ونتائج فحص حالتها العقلية. كان تشخيصها الأولي عبارة عن فقدان الإحساس عند النوم. تمت معالجتها بعقار ترازودين. نظرا لعدم التزامها بالعلاج، تم إجراء تقييم نفسي كامل لها و تخطيط المعصم. بدأت المريضة على عقار أولانزابين وبعد 6 أسابيع تم إخراجها من المستشفى وقد تحسنت حالتها بشكل جيد. يعتبر حالة فقدان الإحساس عند النوم ليس عبارة عن اضطراب في النوم فقط ولكن يمكن اعتباره أيضا اضطراب ذهاني مع أعراض ذهانية. ويوصى بإجراء المزيد من البحوث.

Offering a new perspective on sleep state misperception, we discuss a patient who presented with sleep state misperception and was ultimately diagnosed with delusional disorder. A 60-year-old woman with chief complaints of insomnia, agitation, and suicidal ideation, was admitted to an inpatient psychiatric ward. Based on information from her family and a mental state examination, her primary diagnosis was sleep state misperception. She was treated with Trazodone. Because she was unresponsive to the treatment, a full psychiatric evaluation and wrist actigraphy report were undertaken, resulting in a revised diagnosis of delusional disorder. She was started on Olanzapine and, after 6 weeks was discharged with good improvement. Sleep state misperception might be considered not just as a sleep disorder, but also as a psychiatric disorder with psychotic symptoms. Further research is recommended.

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Subjective insomnia, also called sleep state misperception, is a complex clinical condition. Patients with the disorder typically produce polysomnograms that appear to be normal, but they simultaneously complain of dramatic sleep-related problems.^{1,2} For a combination of reasons, the prevalence of sleep state misperception is unknown. First, large portions of patients do not seek or receive treatment for their condition, thus complicating accuracy of epidemiological counts. Second, the disorder has ambiguous pathophysiology and may actually be a “default diagnosis” for a range of related conditions with similar symptom patterns. Third, little research has been conducted on the condition. Despite these challenges, some scholarly work has been published. Some believe sleep state misperception is a paradoxical rather than a subjective insomnia.³ Others feel that it is a valid condition of physiological sleep dysfunction, but that it represents a transitional state of dysfunction that cannot be measured with available tools prior to the physiological emergence of more objectively-measured sleep dysfunction.⁴ Most physicians treat sleep state misperception in a manner similar to standard protocols for treatment of insomnia. Both anti-anxiety medications and cognitive behavioral therapies have been recommended and shown some efficacy.⁵ This paper discusses a case of sleep state misperception that was ultimately diagnosed with delusional disorder and treated with Olanzapine.

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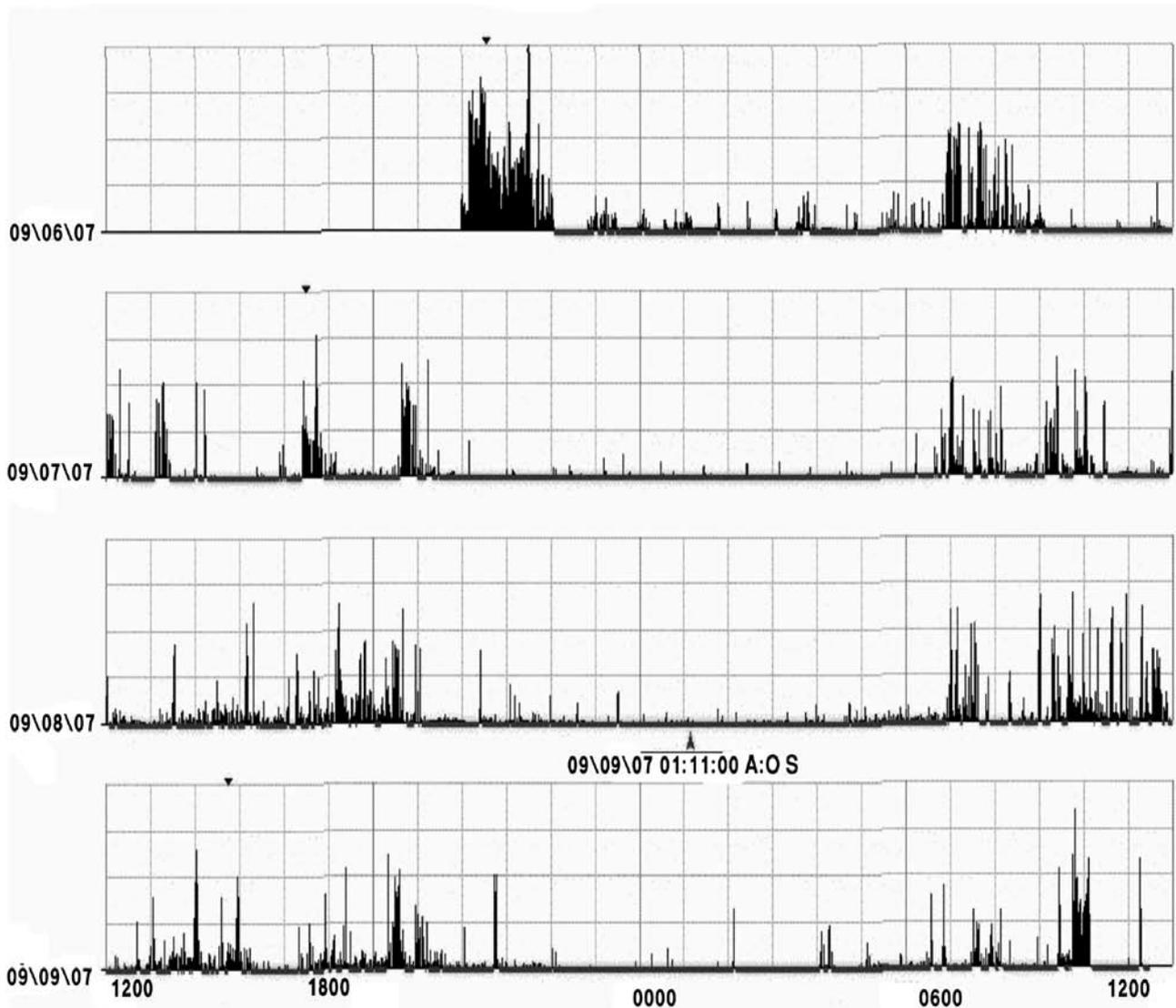


Figure 1 - Objective measure of the patient's sleep, as measured by an actigraph. High bars represent wakefulness, and low bars sleep.

Case Report. In September 2007, a 60-year-old woman with chief complaints of insomnia, recent but not current agitation (4 months earlier), and a recent suicide attempt, was admitted to the inpatient psychiatric ward of Kermanshah Farabi Hospital, Kermanshah, Iran. She had failed to respond to outpatient treatment for insomnia. She reported one previous hospitalization for psychiatric treatment, approximately 40 years ago. No documentation or records on that hospitalization were available, and neither the patient nor her family had information concerning previous psychiatric diagnoses. The family reported that she had been symptom free for many years, and no referral to mental health facilities in the past 40 years was reported. Her physical health was good. Socially, she was an illiterate woman living with her family. Her sister suffered from chronic

schizophrenia. Her husband died several years ago. A mental state examination revealed a 60-year-old woman with appropriate appearance and attire. She was agitated and tearing hair from her head. In Iranian culture, hair-tearing is a common symptom of severe agitation in women. She repeatedly stated, "I can't sleep a wink." She described her mood as depressed, and her affect was flat. Except for severe preoccupation with insomnia, there was no evidence of delusional thinking or hallucinations. The suicide attempt several days earlier was reportedly due to insomnia. She hung herself using a scarf, and was discovered and stopped by her daughter. A psychiatric evaluation and wrist actigraphy were performed. The actigraphy showed normal sleep patterns (Figure 1), and she was diagnosed with sleep state misperception. Previous trials with benzodiazepines were unsuccessful,

so she was started on Trazodone (50 mg per day), Thioridazine (25 mg per day), and Amitriptyline (100 mg per day). Because of her suicidal ideation, 6 sessions of electro-convulsive therapy (ECT) were also administered. After 2 weeks, she insisted that she still could not sleep, and she became very agitated when she was told that her sleep was completely normal. She insisted her actigraphy report was wrong. We reassessed her, and concluded her complaint was a delusion. Treatment with Olanzapine was initiated (2.5 mg twice a day) and slow improvement was observed. After 6 weeks on Olanzapine, full improvement was reached and she stated, "Now, I can sleep." She was discharged and monthly follow-ups performed for one year. Follow-up evaluations showed that her improvement was maintained with the Olanzapine treatment.

Discussion. Because insomnia is one of the most common symptoms of psychiatric disorders such as depression and anxiety, the complaint is often overlooked in favor of more prominent or immediately debilitating symptoms. However, delayed or insufficient treatment of insomnia in depressed patients may exacerbate other symptoms.^{6,7} We recommend that sleep complaints be assessed carefully through polysomnography, actigraphy, and/or sleep questionnaires. In this particular case, despite pharmacological treatments and 6 sessions of ECT, this woman continued to complain of insomnia. We reassessed her and considered other treatment options. She was diagnosed with delusional disorder and started on Olanzapine (2.5 mg twice a day). Her sister's history of chronic schizophrenia also was consistent with the diagnosis of a delusional disorder. Related research demonstrates the efficacy of some atypical antipsychotic drugs, particularly Olanzapine, on sleep quality improvement,^{8,9} and Olanzapine has successfully treated patients with a range of psychiatric illnesses, including schizophrenia.¹⁰ The present data show it might also be helpful to treat sleep state misperception.

Our single case study is not sufficient to claim sleep state misperception is always a psychotic disorder that can be treated effectively with Olanzapine, but it does suggest this possibility should be considered, and that future research should investigate this issue. Future research might consider the possibility that sleep state misperception is composed of a range of disorders that present with similar symptom patterns, but are effectively treated with different therapies. Some sub-types might be successfully treated with Olanzapine and others with different medications or therapies. Future research might also consider whether other atypical antipsychotic medications, besides Olanzapine, would effectively treat sleep state misperception cases. Of course, our findings

should be considered in light of limitations. The hospital did not have polysomnography equipment available, so polysomnography results are unavailable. Further, the patient was severely agitated, and therefore unable to participate in cognitive behavior therapy that may have eased her symptoms without medication.

There are 3 questions that remain open for future research. First, are some types of sleep state misperception a psychotic disorder? Second, is Olanzapine a drug of choice for that sub-type of sleep state misperception? Third, if sleep state misperception is a psychotic disorder, should it routinely be treated with atypical anti-psychotic medications like Olanzapine?

In conclusion, it seems likely that different subtypes of insomnia exist. They are currently unknown. This case provides guidance for further research to discriminate insomnia subtypes that may have psychotic features, and may therefore be responsive to atypical antipsychotic drugs.

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