



Zolpidem Induces Depersonalization and Derealization Symptoms: A Case Report

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Received 2016 November 07; Revised 2016 November 30; Accepted 2016 December 28.

Abstract

The purpose of this study is to present the case of Depersonalization and Derealization induced by Zolpidem. symptoms of depersonalization may occur in individuals who suffer from additional mental disorders, various medical conditions, and/or have taken certain medications. The subject was a 24-year-old male patient who has consumed 20 mg of Zolpidem for the treatment of primary insomnia. He complained that he suffered from a strange feeling in his limbs and hands along with a feeling of change in the environment immediately after the medication. His symptoms ceased after treatment was stopped and recurred when he restarted the drug. Medications and medical as well as psychiatric conditions, which are associated with causing symptoms of depersonalization, are reported here and the postulated pathogenesis by which some of these drugs induced depersonalization symptoms is also discussed. Medication-associated with depersonalization symptoms are typically resolved once the inducing drug has been withdrawn. We performed research questions regarding the side effect of Zolpidem and etiology of derealization as well as depersonalization in all of the databases and citation indexes. There were no results relevant to the research question. Therefore, we should assess medications such as Zolpidem as well as psychiatric conditions that are associated with causing symptoms of depersonalization.

Keywords: Zolpidem, Depersonalization, Derealization

1. Introduction

Zolpidem is an imidazopyridine agent indicated for the short-term treatment of insomnia (1, 2).

Due to its milder and lower problematic side effects, chemically distinction from benzodiazepines, and apparent selectively binding to a subset of benzodiazepine receptors, it has gained popularity as an alternative to benzodiazepine for the treatment of insomnia (3). This property may account for their apparently milder withdrawal effects. Zolpidem exerts hypnotic effect is comparable to short- and medium-acting benzodiazepines, and showed similar or possibly fewer adverse reactions at the therapeutic doses (2), except for gastrointestinal disturbances, which appear to be more common as well as cause visual hallucinations, especially in women. On the other hand, Zolpidem unexpectedly causes as much memory impairment as Triazolam does, if not more, at least in young healthy adults (4). Depersonalization (DP), a complex and obscure subject of clinical psychiatry, has become a recurrent topic of psychopathology in the last 10 years (5). It is characterized by persistent or recurrent episodes of the

patients' detachment from him/herself. It means that individuals may feel like an automaton or may have a sensation of estrangement from their own mental processes, emotions, or body shape (5-8). Often accompanied by derealization (DR), a threatening sense of unreality from the environment, DP can assume various nuanced forms in the clinical practice (5, 9-15).

The purpose of this case report is to present the case of Depersonalization and Derealization (DDD) induced by Zolpidem. Numerous case reports of DDD and articles about Zolpidem's potential neuropsychiatric symptoms have been published. However, and to our knowledge, this is the first case report describing the onset of DDD following the exposure of Zolpidem.

2. Case Presentation

M.R. a 24-year-old male medical student, who has consumed 20 mg of Zolpidem for the treatment of primary insomnia complained that he suffered from a strange feeling in his limbs and hands along with a feeling of change in the environment immediately after the medication.

However, he experienced this episode as a pleasant feeling and he had a positive insight in regards to his problems. Although there was no complaint regarding memory disorder, a visual hallucination, illusion, as well as a derealization with depersonalization were observed, which lasted for 3 hours. The patient received 10 mg of Zolpidem the next night and the same symptoms were experienced. In his medical history, there was no medical and psychiatric problems such as head trauma, epilepsy, and other neurological problems such as dissociative disorder, delirium, psychosis, anxiety state, or a panic attack. Moreover, no history of drug consumption or substance abuse was found. There were no abnormalities in the physical examination and psychiatry interview. In addition, reported symptoms were not repeated in the next nights after discontinuation of Zolpidem and his sleep problem was treated by the sleep hygiene program. Laboratory studies such as hematologic analysis (CBC, Hb, Hct, PLT), liver (SGOT, SGPT, ALP, Br), kidney (BUN, Cr, U/A), and thyroid (T3, T4, TSH) functions were normal. His electroencephalography, brain CT scan, and MRI were also normal. During the following visit, which was 1 month after discontinuation of Zolpidem, the patient did not report any repeated symptoms or have any complaints since his drug withdrawal.

3. Discussion

Zolpidem, an imidazopyridine derivative, is a novel non benzodiazepine hypnotic drug that acts as a ligand to benzodiazepine receptor type-1. Zolpidem is gaining popularity as a short-acting hypnotic with few side effects, nevertheless, some side effects such as sedation, somnolence, dizziness, diarrhea, headache, fatigue, memory loss, visual hallucination, and rare cases of sleep walking, dependency, sleep-related eating disorder, and suicide attempting are reported along with this medication (2, 4, 16-19). Perceptual symptoms such as visual hallucination is also reported after taking Zolpidem (4). Depersonalization (DP) is a fascinating and intriguing phenomenon, which challenges commonly held assumptions regarding the nature of self (20). Depersonalization is defined as an experience in which the individuals feel a sense of unreality and detachment from themselves. Symptoms often include a dreamy state and a sense of detachment (8, 21). There may be a sensation of being an outside observer of one's mental processes, one's body, or parts of one's body (22). DP is often associated with derealization (DR), which consists of an alteration in the perception of one's surroundings so that sense of the reality of the external world is lost (23).

This patient expressed depersonalization, derealization, and visual illusory phenomena after the consump-

tion of Zolpidem. Etiology of these symptoms is multifactorial. Since the patient was an educated medical student and he was aware of his subjective experience and symptoms, his statement is more reliable than other cases reported.

Depersonalization and derealization, specifically DP, may occur in healthy individuals often under the conditions of stress, fatigue, or drug use (24-30). It has been described in a number of psychiatric conditions such as panic disorders, PTSD and major depression, schizophrenia, as well as dissociative disorders (4, 21, 23). In this regard, he did not have a history of psychiatric disorders such as mood disorder, panic disorder, anxiety, and psychotic disorders such as schizophrenia, delirium, as well as dissociative disorder. Drug and substance abuse are reported to be one of the causes of depersonalization (27, 28).

Considering the fact that the side effects suppressed after Zolpidem withdrawal, and since this patient was not on any other medications, nor did he abuse any substances, one can conclude that Zolpidem, however, not the above conditions, may result in depersonalization and derealization.

It has been reported that neurological conditions such as epilepsy is also a result to depersonalization (21). According to the clinical assessment as well as the clinical investigation, which included an EEG, Brain CT scan, and MRI, which were normal, it seems the depersonalization of the patient is not due to these disorders.

3.1. Conclusion

This case report suggests that depersonalization /derealization is induced by Zolpidem, therefore, we recommend that psychiatrist and clinicians should be aware of these side effects when prescribing Zolpidem and need to make sure that they assess the risk of the depersonalization/derealization phenomena in the patients. The Ethics Committee of Birjand University of Medical Sciences approved the ethical considerations of the present study under No Ir.bums.REC.1396.253.

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