Zolpidem-induced Hallucinations: A Brief Case Report from the Indian Subcontinent

Gurvinder Pal Singh, Neeraj Loona

ABSTRACT

We are reporting a case of zolpidem-induced hallucinations in a 20-year-old patient. The duration of this phenomenon was brief, 15-20 minutes. Our case suggests that clinicians must be aware of this phenomenon while prescribing zolpidem.

Key words: Hallucinations, paroxetine, zolpidem

INTRODUCTION

Zolpidem is a short-acting nonbenzodiazepine hypnotic of the imidazopyridine class used for short-term treatment of insomnia. Zolpidem selectively activates only one of the benzodiazepine binding sites of the GABA<sub>A</sub> receptor (alpha-1) which may account for its selective sedative effects and relative lack of muscle relaxant and anticonvulsant effects compared to benzodiazepines. Zolpidem-induced psychotic phenomenon is rarely reported from the Indian subcontinent. Previously, some rare cases of zolpidem-induced hallucinations have been reported from developed countries. This phenomenon was of short duration, lasting for several hours. We are reporting such a case as follows:

CASE REPORT

A 20-year-old female patient visited our psychiatric clinic with sadness of mood and irritable behavior for 4 months. The onset of illness was subacute without any precipitating factors. Her family members also noticed a change in her behavior. Now she would remain worried and preoccupied with thoughts of her marital life most of the time in a day with gradual loss of interest in pleasurable as well as routine activities. She would feel low, gloomy, and fatigued all the day. She had to push herself to go to office and would not take much interest in grooming herself now. She would become easily irritable and falls into arguments frequently. Many a times she would become abusive-aggressive and had harmed herself. Once she attempted suicide after having an argument with her husband. Her biological functions were disturbed and her risk assessment for suicide revealed a high score.

Her detailed routine and special investigations ruled out any organicity. She was diagnosed as a case of major depressive disorder and was put on paroxetine 12.5 mg twice a day and zolpidem 10 mg at bed time for sleep. Next day, she reported with complaints of experiencing dream-like pleasurable state in which there was Lilliputian like visual and elementary auditory hallucinations after half an hour of ingestion of zolpidem. She slept comfortably 15-20 minutes after the episode. She had partial memory for this phenomenon in the morning.

The patient was thoroughly assessed and was advised for hospitalization. Her treatment modalities were
altered. Zolpidem was replaced with alprazolam 0.25 mg and the rest of the medications were unchanged. She remained free of any psychotic phenomenon in further nights. She underwent four psychoeducation sessions and was provided supportive psychotherapy. She showed improvement with treatment and her depressive symptomatology was lessened. The mood disturbances observed in the patient slowly over the next 3-month treatment were replaced by euthymia most of the time. The patient started doing her routine activities and no any hallucinations were reported by the patient in her follow-up.

DISCUSSION

In the index case report, the patient developed hallucinations after intake of first dose of zolpidem. Similar cases have been reported previously by some authors.[2] In our case report the patient was also on serotonin specific reuptake inhibitors (paroxetine). Patient experienced Lilliputian visual and elementary auditory hallucinations within half-an hour of intake of zolpidem. The duration of this phenomenon was brief one only. After stopping zolpidem, the patient had no such psychotic phenomenon. The other antidepressant (paroxetine) was continued and patient responded with this medication.

Zolpidem is rapidly and well absorbed after oral administration. Its onset of action is usually within 15 minutes and its half-life is 2.6 hours. Some users have reported unexplained sleepwalking[3] while using zolpidem. In February 2008, the Australian Therapeutic Goods Administration attached a Black Box Warning to zolpidem, stating, that “Zolpidem may be associated with potentially dangerous complex sleep-related behaviours that may include sleep walking, sleep driving, and other psychotic behaviours.” Keto and Koga[4] reported visual hallucinations in an 82-year-old woman with diagnosis of major depressive disorder after 1 and half month of administration of zolpidem. In contrast, our index patient reported the visual hallucination on the first night. There are reports of occupational hazards with zolpidem-induced hallucinations in a 54-year old driver and the continued use of zolpidem with fluoxetine resulted in nystagmus and gait disturbances.[5]

It was recommended that zolpidem be used for short periods of time using the lowest effective dose. Zolpidem 10 mg is effective in treating insomnia when used intermittently no fewer than three and no more than five pills per week for a period of 12 weeks. Tsai et al.[6] postulated that visual hallucinations associated with zolpidem may be related to sudden withdrawal and restarting of zolpidem. Further the author hypothesized the mechanism of this phenomena was associated with alteration in the GABA-A receptor. The author also suggested that zolpidem should never be used “as needed” basis and the dose should be lowest effective dose. Zolpidem has not proven effective in maintaining sleep and is more used for sleep initiation problems.[7]

Our case highlights that clinicians must be aware of the various pharmacological properties of zolpidem and this molecule can induce hallucinations as was observed in the indexed case. Further, such cases suggest more research in this clinical area for the better wellbeing of the patients.

REFERENCES

1. Morlock RJ, Tan M, Mitchell DY. Patient characteristics and patterns of drug use for sleep complaints in the United States: Analysis of National Ambulatory Medical Survey data, 1997-2002. Clin Ther 2006;28:1044-53.
2. Elko CJ, Burgess JL, Robertson WO. Zolpidem-associated hallucinations and serotonin reuptake inhibition: A possible interaction. J Toxicol Clin Toxicol 1998;36:195-203.
3. Juszczak GR. Desensitization of GABAergic receptors as a mechanism of zolpidem-induced somnambulism. Med Hypotheses 2011;77:230-3.
4. Kito S, Koga Y. Visual hallucinations and amnesia associated with zolpidem triggered by fluvoxamine: A possible interaction. Int Psychogeriatr 2006;18:749-51.
5. Coleman DE, Ota K. Hallucinations with zolpidem and fluoxetine in an impaired driver. J Forensic Sci 2004;49:392-3.
6. Tsai MJ, Huang YB, Wu PC. A novel clinical pattern of visual hallucination after zolpidem use. J Toxicol Clin Toxicol 2003;41:869-72.
7. Rosenberg RP. Sleep maintenance insomnia: Strengths and weaknesses of current pharmacologic therapies. Ann Clin Psychiatry 2006;18:49-56.

How to cite this article: Singh GP, Loona N. Zolpidem-induced hallucinations: A brief case report from the Indian subcontinent. Indian J Psychol Med 2013;35:212-3.

Source of Support: Nil, Conflict of Interest: None.