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CASE REPORTS

Sleep Disturbances and Nightmares in a Patient Treated with Prazosin

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Prazosin is increasingly being used off-label to treat nightmares in patients with posttraumatic stress disorder. The literature about the psychiatric adverse effects of prazosin is very limited. We present a case in which low-dose prazosin was associated with nightmares and sleep disturbances in an elderly patient without previously diagnosed mental illness or coexisting environmental risk factors for nightmares. Insomnia and hallucinations are listed as some of the rare side effects of prazosin by the manufacturer. Prazosin could be associated with rare psychiatric adverse effects and sleep disturbances. Particular attention is required in identifying these adverse effects, which can be difficult to distinguish from other drug-related side effects in the elderly particularly because they are often using multiple medications.

Keywords: prazosin, nightmares, adverse effects

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INTRODUCTION

Prazosin is increasingly being used off-label to treat nightmares in patients with posttraumatic stress disorder (PTSD).[1,2] The adverse psychiatric effects of prazosin are underreported in the literature. We present a case in which low dose prazosin was associated with nightmares and sleep disturbances in an elderly patient without previously diagnosed mental illness or coexisting environmental risk factors for nightmares.

REPORT OF CASE

A 78-year-old Caucasian man with no previous history of mental illness was referred to a pharmacist for a medication review. The patient had a history of benign prostate hypertrophy (BPH), hypercholesterolemia, generalized osteoarthritis, and pre-diabetes. He was being treated with prazosin 1 mg, aspirin 100 mg, simvastatin 40 mg, calcium 600 mg and vitamin D 1000IU daily. The patient has been taking prazosin 1 mg daily at night for the past 1.5 years for BPH with good effect; he reported that the nightmares had commenced soon after prazosin was started and had become more frequent. The nightmares caused severe sleep disturbances resulting in psychological stress. The patient stopped taking his simvastatin, aspirin and prazosin, sequentially, over 3 days as a trial and found that once he stopped taking prazosin for a few days, the frequency of nightmares reduced; however, the patient was not comfortable to discuss this with his medical practitioner for fear of disappointing him. The patient re-commenced prazosin, and nightmares returned after a few days. The patient was referred to a urologist and prazosin was replaced with dutasteride 500 mcg, and tamsulosin HCl 400 mcg. Four days after the changeover the patient found a significant improvement, and 7 days after, his nightmares disappeared and his quality of sleep slowly restored.

DISCUSSION

This is the first case, to our knowledge, reporting nightmares caused by prazosin in a patient without mental illness. Prazosin is a non-sedating α1-adrenergic antagonist, used in the treatment of hypertension and BPH. A recent systematic review and meta-analysis by Berardis et al.[1] demonstrated that prazosin was significantly more efficacious than placebo in reducing nightmares in PTSD patients. In these studies, military-veterans, soldiers on duty and civilians with PTSD nightmares were treated successfully with prazosin dose ranging between 6 mg to 25 mg per day.[1]

Prazosin selectively antagonizes α1-adrenergic receptors in the brain. Excessive noradrenergic activity in the central nervous system is associated with sleep disturbance, a characteristic of PTSD.[4] The noradrenergic system is thought to have the leading role in fear memory formation, consolidation and especially recalling which is associated with sleep disturbances and nightmares observed in PTSD.[1] Thus, the modulation of the noradrenergic system is suggested to be an effective strategy in treating sleep disturbances associated with PTSD.[4]

There is growing evidence in the off-label use of prazosin as the most promising pharmacological agent in treating nightmares associated with PTSD[2]; however, the literature about the psychiatric adverse effects of prazosin is very limited. Insomnia and hallucination are listed as some of the rare side effects of prazosin by the manufacturer.[3] Prazosin has only been reported in a single case report as being associated with bizarre behavior and dissociative symptoms in a patient with PTSD.[5] The symptoms described in the earlier case report[5] and the present case are summarized and compared in **Table 1**.

Prazosin could be associated with rare psychiatric adverse effects such as causing nightmares as discussed in the present case. Particular attention is required in identifying these adverse effects, which can be difficult to distinguish from other

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Table 1—Summary of the earlier case report and the present case of prazosin associated sleep disturbances.

	Present Case	Reardon et al.[5]
Patient	78 year-old male	42 year-old male
Diagnosis	Hypercholesterolemia, osteoarthritis, BPH, and pre-diabetes	PTSD, type 2 diabetes, arthritis
Regular medications	Aspirin, simvastatin, calcium and vitamin D	Citalopram, hydroxychloroquine, insulin, lisinopril and oxycodone
Prazosin dose	1 mg every night	1 mg every night
Symptoms occurred after prazosin initiation	Nightmares (with no previous history of mental illness), waking up frequently at night, daytime stress due to the disturbed sleep	Blurred awareness of the line between dreaming and reality, suicidal thoughts (temporary), driving erratically, disregard of the time, apathy

drug-related side effects in the elderly particularly because they are often using multiple medications.

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