

CLINICAL VIGNETTE

REM Sleep Behavior Disorder Due to Paroxetine

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A 62-year-old man presented for a diagnosis of REM Sleep Behavior Disorder (RBD) and insomnia. He had depression and anxiety and abused alcohol for 3 years but had been sober for the last seven years. He worked the night shift and usually went to bed at 8:00 AM. Since quitting alcohol seven years prior he was started on an unknown antidepressant. He not tolerate this due to a “feeling like he was out of his body”. Six years prior he was started on paroxetine ER 25 mg for anxiety and claustrophobia, with improved symptoms. Four years prior he had a sleep medicine evaluation due to punching, kicking, and yelling in his sleep. Specific examples included punching a pillow while sleeping in bed, kicking a cup on a table while sleeping on an adjacent couch, and swearing in his sleep according to a roommate during a trip. He had fallen off of his bed while sleeping several times, so he had moved all the objects away from the vicinity of his bed. No sleepwalking, sleep eating or sleep driving was reported. He complained of nighttime sleepiness (when he was at work.) No sleep paralysis, hypnagogic or hypnopompic hallucinations, and no cataplexy symptoms. An overnight polysomnogram was conducted during the usual overnight hours. Sleep latency (normal 10-20 minutes) and REM latency (normal 90-120 minutes) were both 26.5 minutes. Total sleep time was 188.5 minutes. Sleep efficiency was reduced at 51.2% (normal >85%). Apnea Hypopnea Index was 1.2. Periodic Limb Movements in Sleep (PLMS) were 33 per hour, but most PLMS were not associated with arousals. Towards the end of the study at 4:38 AM the sleep technician noted punching and kicking while in REM sleep. REM without atonia was also noted. He did not sleep well that night as he normally went to sleep at 8:00 AM after working the night shift. He was diagnosed with REM Sleep Behavior Disorder (RBD) based on a combination of the clinical history of dream enactment behavior and the polysomnogram findings of REM sleep without atonia (RSWA) and movement during REM sleep. Neurological evaluation did not reveal any signs or symptoms of Parkinson’s disease or any other synucleinopathies such as dementia with Lewy bodies or multiple system atrophy. Clonazepam 0.5 mg prior to bedtime was added to the paroxetine ER to try to suppress the RBD. Later he was started on bupropion ER 150 mg twice daily as a second antidepressant to help keep him awake during the night shift. Temazepam 15 mg at bedtime was started for insomnia. Unfortunately, he continued to have frequent dream enactment behavior.

At the time of his reassessment, there was concern the paroxetine was causing or worsening the REM sleep behavior disorder. The paroxetine ER 25 mg was halved to 12.5 mg for 2 weeks, then discontinued. He was advised to remain on the bupropion ER 150. Although bupropion was prescribed to be taken twice daily, he was only taking it once daily. Clonazepam 0.5 mg and temazepam 15 mg at bedtime were continued. He initially experienced some electric shock cessations after stopping the paroxetine, but this gradually resolved. There was no dream enactment behavior after cessation of the paroxetine, and it remained absent after weaning off the clonazepam. For anxiety, he was initially given alprazolam 0.5 mg as needed. Pregabalin was then started as an alternative for anxiety due to its lack of association with RBD. After starting the pregabalin he was able to use lower doses of alprazolam less frequently. He self-discontinued the bupropion. After more than 6 months since stopping the paroxetine, he remained free of episodes of RBD. Also, he no longer needed the clonazepam and the anxiety and depression were under fair control. He was functioning relatively well and working full time. He continued to worry frequently but has chosen not to see a psychologist or psychiatrist. Current medications include pregabalin 75 mg twice daily, alprazolam 0.25 mg twice daily as needed for anxiety, and temazepam 15 mg at bedtime for insomnia.

Complaints of disrupted sleep are very common in patients suffering from depression and anxiety, but the medications for these conditions can sometimes negatively impact sleep. Multiple studies have been done evaluating the effects of antidepressants. In 2004 Winkelman and James analyzed 30 patients, 15 of which were taking a serotonergic antidepressant. They noted that subjects taking serotonergic antidepressants had more EMG activity during REM sleep than did controls.¹ It is not normal to have this finding, and, when it is seen, it is called REM sleep without atonia (RSWA). The current patient was taking paroxetine (a selective serotonin reuptake inhibitor (SSRI)) was noted to have REM without atonia and abnormal movements during REM sleep. REM Sleep Behavior Disorder (RBD) is a parasomnia characterized by loss of the normal atonia of REM sleep, such that patients appear to act out their dreams.² Behaviors include yelling, laughing or crying, complex voluntary movements, falling out of bed, and even violent behaviors with injury.² This patient was diagnosed with RBD based on clinical symptoms and polysomnogram findings.

Whereas RBD is often idiopathic, many studies have reported that antidepressants can produce dream-enactment behavior and loss of normal REM atonia.² Symptoms of dream enactment occur in up to 6% of patients prescribed antidepressants (prevalence is higher in older patients).² In a 2013 study of 100 RBD patients studied over many years, 27 were taking antidepressants. Patients with antidepressant-RBD were found to have abnormalities of numerous markers of synuclein-mediated neurodegeneration similar to the patients with idiopathic RBD.² Although some RBD patients taking antidepressants eventually developed a defined neurodegenerative synucleinopathy, risk was lower than for other idiopathic RBD patients.² This patient was evaluated by a neurologist who determined no early evidence of any neurodegenerative synucleinopathy such as Parkinson's disease, dementia with Lewy bodies, or multiple system atrophy. In a 2010 review article tricyclic antidepressants (TCA), SSRIs, serotonin norepinephrine reuptake inhibitors (SNRI) as well as mirtazapine were noted to be associated with RBD.³ In a more recent 2017 review article, it was noted that SSRIs, SNRIs, and TCAs are known to induce or exacerbate sleep bruxism and disturb regulation of muscle tone during REM sleep, causing REM sleep without atonia, which may induce or worsen REM Sleep Behavior Disorder.⁴ The patient had significant depression and anxiety, so it was felt that he needed something to replace the paroxetine. There were not many other choices since he was already on bupropion (although he later stopped it on his own.) Pregabalin has been shown to be an effective treatment for anxiety,⁵ and so far it has not been associated with RBD. He was started on pregabalin 75 mg twice daily. He tolerated this medication, and it seemed to work well with alprazolam 0.25 mg twice daily as needed for anxiety and temazepam 15 mg at bedtime for sleep.

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