Case Report

Recurrent fearful isolated sleep paralysis – A distressing co-morbid condition of obstructive sleep apnea

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Abstract

We present a case of recurrent fearful isolated sleep paralysis in a 52-year-old male of Indo-Caribbean ethnicity with obstructive sleep apnea (OSA). Recurrent sleep paralysis is a widely under-reported yet worrisome symptom of various sleep disorders. Although a benign condition in most cases, sleep paralysis in a minority of patients causes great distress. Some patients exhibit bedroom avoidance behavior, whereas others experience bedtime anxiety, making it difficult to fall asleep. This leads to poor sleep quality and sleep deprivation, which can greatly impact a person's overall health. As in our case, this led to a vicious "lack of sleep" cycle where a patient who had bedtime anxiety and could not fall asleep, owing to his recurrent isolated sleep paralysis, also had poor quality sleep secondary to his OSA. This increases morbidity and has many potential consequences, which may include cardiovascular events, cognitive decline, and motor vehicular accidents. Sometimes, simply addressing the underlying medical condition cures the recurrent sleep paralysis as in this case where continuous positive airway pressure for OSA cured the recurrent sleep paralysis. One of our goals is to raise awareness of recurrent sleep paralysis so that patients can seek medical help and would not have to live with the anguish of the condition. Coming forward will also assist medical researchers in furthering their understanding of sleep paralysis.

Keywords: Obstructive sleep apnea, sleep paralysis, sleep quality

Background

Sleep paralysis (SP) refers to a temporary inability to move or speak, either while falling asleep or while waking up. The body naturally experiences sleep paralysis during rapid eye movement sleep (REM sleep), also known as atonia, to prevent our unconscious selves from moving or realizing our dreams. However, certain cases where a person is still conscious when experiencing sleep paralysis can cause anxiety, great fear, or hallucinations.

Although the lifetime prevalence of SP is about 7.6% in the general population, the prevalence is higher in certain groups such as students, psychiatric patients, and patients with poor quality sleep.[1,2] For a diagnosis of recurrent isolated sleep paralysis (RISP) to be made, the sleep paralysis episodes must not be connected to an underlying diagnosis of narcolepsy; it should involve multiple episodes over time and be associated with clinically significant distress to the patient.[3] The current knowledge available on RISP and its causes and pathophysiology is still in its infancy. In this paper, we describe a unique case of RISP episodes as a feature of OSA.

Case History

A 52-year-old joiner of Indo-Caribbean ethnicity is brought to the medical clinic by his wife, who has concerns about her husband's breathing while sleeping over the past year. She reports that "sometimes he snores so loudly I can't sleep and sometimes I have to nudge him in bed to make sure he is alive because I

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don't hear him breathing." The patient has gained approximately 5 kg over the past 9 months. Medical history includes a history of childhood asthma with no exacerbations in adulthood and hypertension. The patient is an ex-smoker who quit 10 years prior and has never consumed alcohol. He has classic symptoms suggesting a diagnosis of obstructive sleep apnea (OSA): non-restorative sleep despite an average total sleep duration of 8 to 10 hours per night, morning headaches, and excessive daytime sleepiness. His Berlin and STOP-Bang Questionnaire scores were 3 and 6, respectively, indicating a high risk for obstructive sleep apnea, whereas his Epworth sleepiness scale score was 13, signifying moderate excessive daytime sleepiness.

Upon further probing of sleep history, the patient reports that he has had episodes of "feeling paralysed" over the past year when trying to wake up from sleep. He describes that these episodes last 1–10 minutes as feeling fully aware and awake but unable to open his eyes or move his body as though he is frozen. He reports feeling helpless and very frightened during these episodes thinking that he may die and feels himself gasping for breath. He feels as if his head is bursting open as he tries desperately during the episodes to open his eyes to no avail. Sometimes, the episodes are accompanied by "sensations" of seeing people, hearing doors opening and shutting, and feeling as though ants are crawling over his body. In the beginning, episodes occurred only once or twice a month, but now, they happen several times a week, sometimes twice a day if he takes a daytime nap.

The patient clarifies that this is the most distressing sleep-related problem he has had to deal with over the past few months, making it difficult to fall asleep at times. He admits to worrying about dying in his sleep because of his sleep paralysis. His Fearful ISP interview score was 7 out of 9, confirming the presence of clinically significant fear, distress, and interference. The patient never thought to bring it up in the past as he did not think that it was medical and wanted to avoid burdening his loved ones with unnecessary worry.

The patient denies any excessive or increased stress at work and enjoys spending time with his wife and two children. His physical exam was essentially normal except for obese body habitus (BMI 30 kg/m^2) and notable retrognathia. All blood work, including complete blood count and renal and thyroid functions, is within normal range. Based on the clinical presentation, including catastrophic worry on potential implications of sleep paralysis and occurrence of its negative sequelae like post-episode distress and daytime sleepiness, recurrent isolated sleep paralysis (RISP) associated with obstructive sleep apnea was diagnosed.

Intervention

The patient was educated on OSA diagnosis and RISP and the potential link between the two conditions. He was informed that no pharmacological therapy is as effective as primary therapy for OSA and its associated RISP.

The patient was advised on weight loss through healthy eating and moderate-intensity exercise and was recommended to begin nasal continuous positive airway pressure (CPAP) therapy.

The patient was informed that with the treatment of his OSA, he should have improvement, if not resolution, of his sleep paralysis. He was also advised to keep a sleep diary and document the number of hours slept and sleep paralysis events.

Follow-up

On follow-up after 2 weeks of confirmed adherence to PAP therapy, the patient reports feeling much better. He feels better rested, happier, more invigorated, and vigilant during the day, and most notably, the patient has had no reported episodes of RISP.

Discussion

The index case has highlighted an important and underreported manifestation of sleep apnea. RISP is a REM sleep-associated parasomnia that occurs as multiple episodes of inability to perform voluntary movements with clinically significant distress and is sometimes associated with hallucinations that occur independent of narcolepsy.[4,5] RISP sometimes can be a manifesting feature of OSA.[6] Its exact pathophysiology is not fully understood, and its frequency is not widely documented. Sleep paralysis is common in the general population (7.6%) and psychiatry patients (31.9%).[1] Although it may not be a common presenting symptom of OSA, it is still an important co-morbid condition that should be enquired about when taking a sleep history for suspected OSA. According to a study on Chinese-Taiwanese sleep apnea patients, the sleep paralysis prevalence was 38.3% and independently associated with excessive daytime sleepiness, poor sleep quality, and mental health-related quality of life.[2]

RISP diagnosis is mainly based on its clinical manifestations rather than polysomnography. OSA-associated RISP management is mainly based on managing sleep apnea with CPAP therapy to improve sleep quality. In some patients, addressing the underlying psychiatric disease with cognitive behavior therapy and practicing sleep hygiene can improve sleep paralysis. Although no proven pharmacological therapy is available, REM-suppressing agents such as tricyclic anti-depressants and selective serotonin re-uptake inhibitors can be useful in relieving refractory RISP.[7,8]

Patients such as in this case who suffer from sleep paralysis can be hesitant to report their condition because of fear of stigmatization despite the great morbidity associated with the condition.[9] As such, it is a widely underreported condition, and many patients suffer in silence. It is therefore important to raise public awareness of sleep paralysis and normalize it so that sufferers can seek out appropriate medical help.

Conclusion

Sleep paralysis can be a feature of OSA, which can cause great distress to patients. Treatment of associated OSA improves

sleep quality and can thus resolve it. Sleep paralysis, in general, is an underreported entity as many patients may not consider it a medical problem, whereas others may fear stigmatization. These are just two among a myriad of other reasons.

The literature on sleep paralysis, in general, is still lacking. Factors such as triggers and prognosis are not well understood; however, strides are being made in terms of investigating the correlation between sleep paralysis and sleep quality and pathology.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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