# Letter to the Editor

## "I Choked My Wife Again!"—A Case Report

**To the Editor:** Sleep is a complicated process. In 1957, rapid eye movement (REM) sleep was discovered and sleep was divided into REM and non-REM (NREM) based on the electroencephalographic (EEG) features.[1] Then NREM sleep was further divided into 4 stages, with stages 3 and 4 called "deep sleep."[2] Normal sleep cycles through the night, with "deep sleep" early on and more REM sleep toward morning. NREM sleep occupies 80% of the night, and REM sleep occupies 20% and occurs about every 90 minutes.[3]

Although one-third of our lifetime is spent in sleep and $16 billion is spent on health care of sleep disorders in the United States annually, there has been relatively little medical attention paid to sleep disorders.[4] The *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition, Text Revision (*DSM-IV-TR*),[5] divides sleep disorders into 6 categories: insomnia, breathing disorders, hypersomnia-narcolepsy, circadian disorders, parasomnias, and movement disorders. REM sleep behavior disorder (RBD) is an intriguing parasomnia with diagnostic criteria that consist of (1) polysomnogram abnormality during REM sleep: elevated submental electromyographic (EMG) tone and/or excessive phasic submental and/or limb EMG twitching; (2) documentation of abnormal REM sleep behaviors during polysomnogram studies (prominent limb or truncal jerking; complex, vigorous, or violent behaviors) or a history of injurious or disruptive sleep behaviors; and (3) absence of EEG epileptiform activity during REM sleep.[6] About 90% of RBD patients are men older than 50 years.[7]

Here, a case of a patient is presented who repeatedly experienced wife-choking violent behaviors secondary to his underlying RBD in 2008 and 2009.

***Case report.*** Mr A, a 51-year-old white man, had a past medical history of *DSM-IV-TR* major depressive disorder; *DSM-IV-TR* schizophrenia, paranoid type; and mild mental retardation. He was brought to the hospital after he choked his wife twice in 6 weeks. The patient's wife was taking phenobarbital for seizures. Besides taking divalproex, fluoxetine, haloperidol, and trazodone as prescribed by his psychiatrist, Mr A also took his wife's phenobarbital for insomnia. The patient denied abusing alcohol or illegal drugs. For the first hospitalization, Mr A was admitted for his first wife-choking episode. For the second hospitalization, Mr A was admitted to the medical unit after he passed out while driving and crashed his car into a tree. Mr A was transferred, once medically stable, to the psychiatric unit for further treatment of his depression. Within 6 days after he was discharged with increased dosage of divalproex and the same dosages of fluoxetine, haloperidol, and trazodone, Mr A was admitted for the third time due to his second wife-choking episode. The patient heard his own voice telling him to attack his wife.

Extensive laboratory and imaging studies including blood alcohol level, urine drug screen, complete metabolic profile, complete blood cell count, urinalysis, thyroid-stimulating hormone level, rapid plasma reagin, computed tomography (CT) head scan without contrast, CT cervical spine without contrast, carotid ultrasound, and chest x-ray were unremarkable. However, his electroencephalogram displayed excessive eye movement without evidence of any epileptic activity. Because both wife-choking episodes happened either during a daytime nap or during the night when the patient and his wife were in bed asleep, and also because the patient was obese and had been suffering from insomnia, daytime sleepiness, and tiredness for years, an all-night polysomnogram was completed and revealed multiple pathological findings, as follows:

1. *Obstructive sleep apnea:* The diagnostic portion of sleep study lasted from 10:07 PM to 1:08 AM, and no REM or deep sleep was seen during this period. In contrast, classic obstructive apneas-hypopneas were frequently seen. The total sleep time apnea-hypopnea index for the diagnostic portion of the study was 61/h of sleep. The minimum oxygen saturation ($SatO_2$) was 88%. The obstructive sleep apnea was relieved by giving the patient continuous positive airway pressure (CPAP) at 14 cm of water during the therapeutic portion of the study from 1:08 AM to 5:07 AM, and his $SatO_2$ remained above 95%.
2. *Periodic limb movement:* There were frequent leg movements during both diagnostic and therapeutic portions of the study; some occurred out of the phase with the respiratory events, suggesting the leg movements were an independent problem.
3. *REM sleep without atonia:* Once the patient entered the single REM sleep cycle during the therapeutic portion of the study, motor activity in both legs was frequently observed, and many of these episodes met American Association of Sleep Medicine criteria for REM sleep without atonia.[3]

These findings are compatible with the patient's history of RBD (wife-choking episodes). The drug of choice for RBD is clonazepam.[7] After Mr A's CPAP use during sleep was confirmed, he was started on a daily low dose of clonazepam. Mr A became stabilized quickly and was discharged after 11 days.

Almost 10% of patients with RBD may present to a psychiatrist.[8] The psychiatrist should be aware that RBD is associated with numerous psychiatric diseases such as depression and posttraumatic stress disorder.[9,10] Acute RBD occurs mostly due to withdrawal from alcohol or drugs,[6,11] while chronic REM behavior disorders are idiopathic or associated with neurologic disorders such as Parkinson's disease or Alzheimer's disease.[12–14] Early diagnosis and treatment of RBD will benefit the prognosis of many psychiatric patients.

### References


1. Dement W, Kleitman N. Cyclic variations in EEG during sleep and their relation to eye movements, body motility, and dreaming. *Electroencephalogr Clin Neurophysiol*. 1957;9(4):673–690.
2. Rechtschaffen A, Kales A. *A Manual of Standardized Terminology, Techniques and Scoring System for Sleep Stages of Human Subjects*. Washington, DC: Public Health Service, US Government Printing Office; 1968.
3. Iber C, Ancoli-Israel S, Chesson A, et al. *The AASM Manual for the Scoring of Sleep and Associated Events: Rules, Terminology and Technical Specifications*. Westchester, IL: American Academy of Sleep Medicine; 2007.
4. Dement WC. *The Current Status of Sleep Disorders in America and the National Center on Sleep Disorder Research: Health & Environment Subcommittee Hearing, New Developments in Medical Research: NIH & Patient Groups*. Washington, DC: Health and Environment Subcommittee; 1998.
5. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition, Text Revision. Washington, DC: American Psychiatric Association; 2000.
6. Mahowald MW, Schenck CH. REM sleep parasomnias. In: Kryger MH, Roth T, Dement WC, eds. *Principles and Practice of Sleep Medicine*. 3rd ed. Philadelphia, PA: WB Saunders; 2000:724–741.
7. Schenck CH, Hurwitz TD, Mahowald MW. REM sleep behavior disorder: an update on a series of 96 patients and a review of the world literature. *J Sleep Res*. 1993;2(4):224–231.
8. Schenck CH, Mahowald MW. REM sleep behavior disorder: clinical, developmental, and neuroscience perspectives 16 years after its formal identification in SLEEP. *Sleep*. 2002;25(2):120–138.

9. Clarke NA, Williams AJ, Kopelman MD. Rapid eye movement sleep behaviour disorder, depression and cognitive impairment: case study. *Br J Psychiatry*. 2000;176(2):189–192.
10. Husain AM, Miller PP, Carwile ST. REM sleep behavior disorder: potential relationship to post-traumatic stress disorder. *J Clin Neurophysiol*. 2001;18(2):148–157.
11. Tachibana M, Tanaka K, Hishikawa Y, et al. A sleep study of acute psychotic states due to alcohol and meprobamate addiction. In: Weitzman ED, ed. *Advances in Sleep Research*. Second volume. New York, NY: Spectrum; 1975:177–203.
12. Schenck CH, Mahowald MW. Delayed emergence of a parkinsonian disorder in 38% of 29 older males initially diagnosed with idiopathic REM sleep behavior disorder. *Neurology*. 1996;46:388–393.
13. Tan A, Salgado M, Fahn S. Rapid eye movement sleep behavior disorder preceding Parkinson's disease with therapeutic response to levodopa. *Mov Disord*. 1996;11(2):214–216.
14. Schenck CH, Garcia-Rill E, Skinner RD, et al. A case of REM sleep behavior disorder with autopsy-confirmed Alzheimer's disease: postmortem brain stem histochemical analyses. *Biol Psychiatry*. 1996;40(5):422–425.

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