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Idiopathic REM sleep behaviour disorder: a case report

Abstract

This case reports one of the rare parasomnias, i.e. rapid eye movement (REM) sleep behaviour disorder (RSBD), and shows that accurate diagnosis and management results in great outcome.

Keywords: Parasomnias. Electroencephalography. Parkinsonian Disorders.

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Introduction

Rapid eye movement (REM) sleep behaviour disorder (RSBD) is one of the rare parasomnias with an incidence of 0.39% to 0.5% and is very often misdiagnosed. RSBD is characterised by loss of muscle atonia which results in dream enacting behaviour (acting out of dreams). Increasing positive evidences of RSBD as the predictor or as an initial manifestation for neurological diseases like parkinsonism, Lewy body dementia, etc. were found even years before the disease manifests.[1,2] With accurate diagnosis and management, it has a great outcome with sustained good quality of sleep.

Case

A 65-year-old retired male teacher from higher middle socioeconomic class presented with gradually progressive sleep disruption, frequent sleep injuries, and excessive worry about his problem for last four years. He was complaining of often getting scary, action filled, and violent dreams. He was noticed to have some odd behaviours like mumbling, gesturing, grabbing, falling out of bed, thrashing on objects as if he was acting on dreams but for which he had no memories. On waking him up during those episodes, he used to explain his dreams. There were instances where he kicked out his wife from the bed during sleep. For last three years, they were sleeping separately in different rooms under the same roof. Recently, he was treated for a fracture ulnar bone on right forearm which occurred by breaking the window glass while asleep. Because of his behaviour, his wife and children were afraid of some psychiatric illness and so, was bought to the psychiatry outpatient department (OPD) of the Regional Institute of Medical Sciences (RIMS), Imphal, Manipur, India for evaluation.

Examination and investigations

On examination, he was well nourished and moderately built with a body mass index (BMI) of 20.3. Systemic examination was normal for age without any motor or behaviour problems. Mental status examination revealed anxiousness with a Mini Mental State Examination (MMSE) score of 29.[3] The Epworth sleepiness scale (ESS) showed a score of 12 and Hamilton Anxiety Rating Scale (HAM-A) score of 12.[4,5]

There was no other history suggestive of any neurological illness, seizure disorder, or sudden involuntary loss of muscle tone/posture during day time, or substance abuse or on any drugs or psychiatric illness. No history supportive of excessive snoring or frequent awakening from daily sleep was found. No such family history of similar illness was found.

Routine blood investigations like complete blood count (CBC) including serum ferritin levels, thyroid function test, liver and kidney function tests were done, which were within normal limits. Lumbar puncture was not done as the patient did not consent. Nocturnal electroencephalography (EEG) and magnetic resonance imaging (MRI) brain were done and no significant abnormality was detected.

Supporting evidence of his dream enacting behaviour was captured in a video. Nocturnal laboratory polysomnography (PSG) showed a normal duration of the different sleep stages. Sleep respiratory pattern was normal (apnoea/hypopnoea index of 1.5). During REM sleep, tonic and phasic contractions of chin muscles in electromyogram (EMG) was present. No other abnormalities detected.

Management

He was diagnosed as a case of idiopathic RSBD according to the third edition of the International Classification of Sleep Disorders (ICSD-3)[6] and was started on tablet clonazepam 0.5 mg once daily at bed time with education of sleep hygiene and environmental safety measures to avoid injuries. He was followed up for next six months and reported appreciable behavioural changes in his sleep with subjective improvement of good quality of sleep with ESS score of five and HAM-A score of five.

Discussion

Parasomnias are unpleasant behaviour or experience that occurs during sleep. These can be divided into non-REM (NREM) and REM parasomnias based on the cycle of sleep in which it occurs. REM sleep parasomnias can vary from a simple nightmare disorder to RSBD. Normal REM sleep is characterised by increased physiological activation with complete loss of muscle tone (paradoxical sleep). Nightmares are characterised by increased mental activities. Nightmares are lengthy, elaborate dreams with imagery that evokes fear, anxiety, or sadness, and RSBD by loss of muscle atonia. RSBD is defined by repeated episodes of awakening from sleep accompanied by agitated or violent behaviours, such as shouting, screaming, kicking, and punching. Because such episodes occur during REM sleep, they more commonly occur in the second half of the sleep period. Following an event, arousal from sleep to alertness and orientation is usually rapid, and accompanied by complete dream recall, in contrast to disorders of NREM parasomnias, such as sleepwalking or sleep terrors. Patients with RSBD typically awake quickly and completely from episodes. The diagnosis is confirmed by PSG, recording reduced muscle atonia during REM sleep, which permits the "acting out of dreams." Alternatively, a compelling history of RSBD accompanied by diagnosis of a synucleinopathy, such as Parkinson's disease, can be used to establish the diagnosis. The behaviours cause significant distress or impairment and are not better explained by the effects of a medication or substance or another medical or mental disorder.[2]

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