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Childhood night terrors and sleepwalking: diagnosis and treatment

Abstract

Night terrors and sleepwalking are arousal disorders that occur during the first third of night. Combined existence of sleep disorders are rare phenomenon and found to be associated with behavioural and emotional problems. It becomes difficult to diagnose among sleep disorders and epilepsy is an important differential diagnosis. Management with combined approach of pharmacotherapy and psychological counselling is safe and effective. Here, we present a case of night terrors and sleepwalking to highlight the importance of diagnosis and treatment in this condition. To conclude, all medical professionals need to be aware of different parasomnias and its treatment options.

Keywords: Sleep Arousal Disorders. Parasomnias. Behavioural Problems.

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Introduction

Night terrors are characterised by incomplete arousal from sleep associated with behaviour suggesting extreme fight along with abrupt awakening, somnambulism, and panicky screams.[1] Night terrors and sleepwalking or somnambulism occur during the non-rapid eye movement (NREM) deep, slow wave, stage three/four sleep. It commonly manifests in childhood with a peak incidence at 11-12 years, but may be prevalent in one to two per cent of adults.[2] They usually occur during the first half of night; most patients have prominent sympathetic activity such as tachycardia and sweating, deep sense of fear, partial amnesia for the events.[2,3] Sometimes the sleeper may bolt from the bed and run in an apparent attempt to avoid harm, thereby injuring themselves or others.[4] The potential triggers include family history, sleep deprivation, touch, noise, stress, alcohol, medications, and slow wave sleep disturbances.[5] Here, we report a case of NREM parasomnias that highlight the diagnosis and treatment of the condition.

Case

A male child aged 11 years, a student of sixth standard, hailing from a Hindu family of middle socioeconomic status and an urban background, presented to the Department of Psychiatry, Jawaharlal Nehru Medical College, Sawangi (Meghe), Wardha, Maharashtra, India with the complaints of walking in sleep, shouting, ran out of his bed, tried to open the locked doors, and unable to recognise his parents in the middle of night for the past three years. He continued to scream and fight for several minutes when his parents tried to comfort him, followed by resuming his sleep. It occurs in episodes and each episode lasted for around ten to 15 minutes. Only one episode would occur per night and over three years, the frequency had gradually increased to about four to five times per month. In the morning he was unable to recall the events. The past history and family history were unremarkable. The child had attained normal developmental milestones. Further history revealed physical punishment by his parents. The physical examination and mental examination of the child revealed no abnormality. An electroencephalogram (EEG) was done and found to be normal. As per the tenth revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) criteria,[6] diagnosis of night terror and somnambulism was made. He was started on Tab. Escitalopram 5 mg and Tab. Clonazepam 0.25 mg at bed time. The patient reported significant improvement of symptoms over a period of 15 days and continued medications for three months. The parents were educated regarding disorder, reassured, advised to reduce pressure on child, follow consistent sleep schedule, and be supportive.

Discussion

Night terrors and somnambulism are arousal disorders occurring in NREM stages of sleep, most often in the first third of night. It may last from several minutes to a hour.[7] Sleep terrors and sleepwalking considerably overlaps and share many features. At least one of the following should be present in both of the disorders: 1) difficult to arouse the person, 2) mental confusion on awakening from an episode, 3) partial or complete amnesia for the episode, and 4) dangerous behaviour during the episode.[8] These two conditions may be connected, as about one third of the children develop sleepwalking who had night terrors.[9] Although rare, night terrors when accompanied by sleepwalking and other automatic behaviours are difficult to treat. There have been reports of effective treatment with benzodiazepines, selective serotonin reuptake inhibitors (SSRIs), imipramine, avoidance of stress, and proper sleep hygiene.[10] Benzodiazepines affect gamma-aminobutyric acid (GABA) which is the main inhibitor of central nervous system. GABA receptors control chloride ion channels and both are up-regulated with the use of benzodiazepines. This hyperpolarises the cell membrane in turn inhibiting the action potential firing and less activity. SSRIs prevent the reuptake of serotonin in the neuronal synapse and thereby increasing its concentration in the brainstem which suppresses night terrors.[11]

The patient in the present case had attacks of night terrors and sleep walking with the history of stress being physical punishment by parents and no comorbid psychopathology. Literature reported that stress being potential triggering factor for parasomnias and no clear association between psychopathology and somnambulism.[12] Diagnosis is easily established by history alone in the present case. Treatment is considered in this case taking into consideration the increased frequency of events; violent and potentially injurious events; long duration of illness and presence of stressors. In conclusion, this case report suggested that psychological counselling, use of escitalopram and clonazepam found to be effective in reducing night terror and somnambulism frequency in short period of time. All medical personnel should be educated to differentiate among various sleep disorders so that they can respond with effective treatment suggestions. Further research needs to be carried out to demonstrate the effectiveness of treatment options.

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