CORRESPONDENCE

Sleep-Related Disorders in Neurology and Psychiatry

by Dr. med. Jan Rémi, Prof. Dr. med. Thomas Pollmächer, Prof. Dr. phil. Dr. med. Kai Spiegelhalder, Prof. Dr. med. Claudia Trenkwalder, and Prof. Dr. med. Peter Young in issue 41/2019

Unidentified Nocturnal Epileptic Seizures

The authors point out that epileptic seizures in patients with obstructive sleep apnea are difficult to control with medication, and nocturnal seizures are a possible differential diagnosis to sleep-associated motor phenomena (1). It should, however, be made clearer that daytime somnolence and cognitive impairments during the day, with concentration and memory problems, can be primary indicators of epilepsy that has remained undiagnosed because it manifests with nocturnal seizures. For this reason, especially in younger persons, diagnostic evaluation using imaging and EEG should be undertaken.

From my own experience I wish to report the case of a 22-year-old female patient who occasionally woke up in a rumpled or disheveled bed and complained of daytime tiredness. When she had bitten her tongue one morning, an epileptic seizure was considered for the first time. An EEG was normal. Before it was possible to perform outpatient cranial magnetic resonance imaging, she died from sudden unexpected death in epilepsy (SUDEP) as a result of a further nocturnal seizure. The post-mortem examination disclosed focal cortical dysplasia (FCD).

Sleep and epileptic activity influence one another. The epilepsy can be the cause of sleep disorders, by disturbing sleep architecture beyond the postictal phase. The result will be daytime tiredness and memory problems. Going through the stages of sleep is important for consolidating stored memories (2). On the other hand, disrupted sleep will bring about a deterioration in epileptic seizures. Nocturnal frontal lobe seizures are among the types of epilepsies that manifest during sleep (3). These can, for example, occur as a result of migration disorders and FCD (as in the reported patient) with hypermotor seizures. Genetic epilepsies, such as generalized tonic clonic seizures on waking up, are also sleep related.

Disrupted sleep and daytime tiredness can therefore primarily indicate epilepsy as the cause, not merely a secondary differential diagnosis of motor phenomena during sleep.

DOI: 10.3238/arztebl.2020.0118a

References

1. Rémi J, Pollmächer T, Spiegelhalder K, Trenkwalder C, Young P: Sleep-related disorders in neurology and psychiatry. Dtsch Arztebl Int 2019; 116: 681–8.
2. Bazil CW: Epilepsy and sleep disturbance. Epilepsy Behav 2003; 4 (Suppl 2): 39–45.
3. Manni R, Terzaghi M: Comorbidity between epilepsy and sleep disorders. Epilepsy Res 2010; 90: 171–7.

Dr. med. Gunnar Riemer
Berlin
gunnar.riemer@googlemail.com

Conflict of interest statement
The author declares that no conflict of interest exists.

In Reply:

We thank Dr. Riemer for his comments and the discussion of the differential diagnosis of parasomnias.

As we explained in our review article, "poor sleep" is an umbrella term for many disorders during sleep and when awake (1). Indeed, nocturnal attacks/seizures in young people with no prior health problems should prompt detailed and careful differential diagnostic evaluation. Additional symptoms, such as cognitive impairment during the day, personality changes, or daytime tiredness that would be inappropriate in someone whose sleep was subjectively good, should warrant further investigations. The patient's age is decisive for the differential diagnostic evaluation. In young, otherwise healthy patients, epilepsies are more common; other parasomnias—for example, REM-sleep-behavior disorder (RBD) as an important differential diagnosis of nocturnal behavior is typical for older patients; young patients with RBD are rare. Distinguishing nocturnal epileptic seizures from parasomnias or otherwise disturbed sleep can be difficult. Questionnaires may provide initial indications (2).

The mentioned differential diagnoses for SHE ("sleep-related hypermotor epilepsy"—previously called „nocturnal frontal lobe epilepsy" [NFLE] [3]) are rare, but because of their rarity and the often normal interictal EEG, they constitute an important differential diagnosis of great importance for therapy.

In conclusion, the colleague's case report confirms the approach that sleep-related disorders need to be carefully diagnostically evaluated, by symptom complex and additional symptoms, and should not generally be treated with "sleeping pills."

DOI: 10.3238/arztebl.2020.0118b

References

1. Rémi J, Pollmächer T, Spiegelhalder K, Trenkwalder C, Young P: Sleep-related disorders in neurology and psychiatry. Dtsch Arztebl Int 2019; 116: 681–8.
2. Derry CP, Davey M, Johns M, et al.: Distinguishing sleep disorders from seizures: diagnosing bumps in the night. Arch Neurol 2006; 63: 705–9.
3. Tinuper P, Bisulli F, Cross JH, et al.: Definition and diagnostic criteria of sleep-related hypermotor epilepsy. Neurology 2016; 86: 1834–42.

On behalf of the authors
PD Dr. med. Jan Rémi
Neurologische Klinik und Poliklinik, LMU München
jan.remi@med.lmu.de

Conflict of interest statement
PD Rémi received fees for advisory board activities as well as lecture fees from Vanda. He received lecture fees from Vanda and Bioproject. For carrying out clinical trials on a contract basis, he received funding from Kappa Saute.