

## Bölüm 5

# EPİLEPSİ AYIRICI TANISINDA UYKU BOZUKLUKLARI

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### GİRİŞ

Uyku ve epilepsi birlikte değerlendirilebilen iki ana konudur. Epileptik nöbetler ve elektroensefalogram (EEG) tarafından saptanan epileptiform nöronal aktivite genellikle uyanıklıktan çok uyku sırasında ortaya çıkma eğilimindedir ve uykunun belirli dönemlerinde görülen sirkadiyen özellik gösterir (1). Epileptiform aktivitenin ortaya çıkması ile normal uyku yapısı bozulur, bu durum nöbet riskini artırır ve böylece kısır bir döngü oluşur (2). Ayrıca, uyku bozuklukları (örneğin insomniler, hipersomniler veya sirkadiyen ritim bozuklukları) epilepsili hastalarda epilepsisi olmayan kişilere göre daha yaygındır (3).

Uyku ile ilişkili bazı fizyolojik veya patolojik durumlar, epilepsi tanısı ile sık sık karışabilmektedir. Epileptik nöbetlerin yaklaşık % 12-20'si gece uyku sırasında olmaktadır (4). Bu konudaki yetersizlik, yanlış tanı koyma, gereksiz, maliyetli araştırmalar, etkisiz ve potansiyel olarak zararlı terapötik yaklaşımlar ve hatalı epilepsi teşhisinin negatif psikososyal etkileri dahil olmak üzere birçok olumsuzluğa neden olabilmektedir. Bu hastaların bir kısmı yanlışlıkla uzun süre epilepsi tedavisi alırlar. Ya da tam tersi olarak da bazı epilepsi hastaları uzun süre uyku bozuklukları tanısı alarak epilepsi açısından tedavisiz kalabilmektedir. Bu hastaların ayırıcı tanısı yapılarak doğru tanıyı en kısa zamanda koymak çok önemlidir. Epileptik ataklar; uyku terörü, konfüzyonel uyanma, uykuda yürüme gibi uykunun hızlı olmayan göz hareketleri (non-rapid eye movement, NREM) uyku bozukluklarından ve uykunun hızlı göz hareketleri (rapid eye movement, REM) davranış bozukluğu, kâbus bozukluğu, tekrarlayıcı uyku paralizisi gibi REM uyku bozukluklarından, uykuda ritmik hareket bozuklukları, uykuda dış gıcırdatma (bruksizm) gibi bozukluklardan ayırt edilmelidir (5).

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## **Aşırı Fragmenter Miyoklonus**

Aşırı fragmenter miyoklonus gerçek bir hareket bozukluğu değildir. Daha çok kas fasikülasyonudur (59). Her ne kadar bening bir hareket olsa da son zamanlarda yapılan çalışmalarda Parkinson hastalığı ve periferik sinir hastalıkları ile bir ilişkisi olabileceği gösterilmiştir (60). Tanı, polisomnografi sırasında en az 20 dakikalık NREM uykusunda en az 150 ms'lik karakteristik EMG paterninin ve dakikada beş EMG aşırı fragmenter miyoklonus potansiyeli hızının varlığına dayanır.

## **KAYNAKLAR**

1. Kothare SV, Kaleyias J. Sleep and epilepsy in children and adolescents. *Sleep medicine*. 2010;11(7):674-85.
2. Crespel A, Coubes P, Baldy-Moulinier M. Sleep influence on seizures and epilepsy effects on sleep in partial frontal and temporal lobe epilepsies. *Clinical neurophysiology : official journal of the International Federation of Clinical Neurophysiology*. 2000;111 Suppl 2:S54-9.
3. Díaz-Negrillo A. Influence of sleep and sleep deprivation on ictal and interictal epileptiform activity. *Epilepsy research and treatment*. 2013;2013:492524.
4. Terzano MG, Parrino L, Smerieri A, Carli F, Nobili L, Donadio S, et al. CAP and arousals are involved in the homeostatic and ultradian sleep processes. *Journal of sleep research*. 2005;14(4):359-68.
5. Cornaggia CM, Beghi M, Giovannini S, Boni A, Gobbi G. Partial seizures with affective semiology versus pavor nocturnus. *Epileptic disorders : international epilepsy journal with videotape*. 2010;12(1):65-8.
6. Manni R, Terzaghi M, Repetto A. The FLEP scale in diagnosing nocturnal frontal lobe epilepsy, NREM and REM parasomnias: data from a tertiary sleep and epilepsy unit. *Epilepsia*. 2008;49(9):1581-5.
7. Jain SV, Dye T, Kedia P. Value of combined video EEG and polysomnography in clinical management of children with epilepsy and daytime or nocturnal spells. *Seizure*. 2019;65:1-5.
8. Halász P, Bódizs R, Ujma PP, Fabó D, Szúcs A. Strong relationship between NREM sleep, epilepsy and plastic functions - A conceptual review on the neurophysiology background. *Epilepsy research*. 2019;150:95-105.
9. Fan D, Liao F, Wang Q. The pacemaker role of thalamic reticular nucleus in controlling spike-wave discharges and spindles. *Chaos (Woodbury, NY)*. 2017;27(7):073103.
10. Arbune AA, Nikanorova M, Terney D, Beniczky S. REM-sleep related hypermotor seizures: Video documentation and ictal source imaging. *Brain & development*. 2020;42(7):503-7.

11. Weir E, Gibbs J, Appleton R. Panayiotopoulos syndrome and benign partial epilepsy with centro-temporal spikes: A comparative incidence study. *Seizure*. 2018;57:66-9.
12. Peres J, Antunes F, Zonjy B, Mitchell AL, Lhatoo SD. Sleep-related hypermotor epilepsy and peri-ictal hypotension in a patient with syntaxin-1B mutation. *Epileptic disorders : international epilepsy journal with videotape*. 2018;20(5):413-7.
13. Tinuper P, Provini F, Bisulli F, Lugaresi E. Hyperkinetic manifestations in nocturnal frontal lobe epilepsy. Semeiological features and physiopathological hypothesis. *Neurological sciences : official journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology*. 2005;26 Suppl 3:s210-4.
14. Gibbs SA, Proserpio P, Terzaghi M, Pigorini A, Sarasso S, Lo Russo G, et al. Sleep-related epileptic behaviors and non-REM-related parasomnias: Insights from stereo-EEG. *Sleep medicine reviews*. 2016;25:4-20.
15. Sateia MJ. International classification of sleep disorders-third edition: highlights and modifications. *Chest*. 2014;146(5):1387-94.
16. Halász P, Kelemen A, Szűcs A. The role of NREM sleep micro-arousals in absence epilepsy and in nocturnal frontal lobe epilepsy. *Epilepsy research*. 2013;107(1-2):9-19.
17. Joncas S, Zadra A, Paquet J, Montplaisir J. The value of sleep deprivation as a diagnostic tool in adult sleepwalkers. *Neurology*. 2002;58(6):936-40.
18. Ohayon MM, Guilleminault C, Priest RG. Night terrors, sleepwalking, and confusional arousals in the general population: their frequency and relationship to other sleep and mental disorders. *The Journal of clinical psychiatry*. 1999;60(4):268-76; quiz 77.
19. Howell MJ. Parasomnias: an updated review. *Neurotherapeutics : the journal of the American Society for Experimental NeuroTherapeutics*. 2012;9(4):753-75.
20. Petit D, Pennestri MH, Paquet J, Desautels A, Zadra A, Vitaro F, et al. Childhood Sleepwalking and Sleep Terrors: A Longitudinal Study of Prevalence and Familial Aggregation. *JAMA pediatrics*. 2015;169(7):653-8.
21. Tinuper P, Provini F, Bisulli F, Vignatelli L, Plazzi G, Vetrugno R, et al. Movement disorders in sleep: guidelines for differentiating epileptic from non-epileptic motor phenomena arising from sleep. *Sleep medicine reviews*. 2007;11(4):255-67.
22. Carrillo-Solano M, Leu-Semenescu S, Golmard JL, Groos E, Arnulf I. Sleepiness in sleepwalking and sleep terrors: a higher sleep pressure? *Sleep medicine*. 2016;26:54-9.
23. Ito E, Inoue Y. [The International Classification of Sleep Disorders, third edition. American Academy of Sleep Medicine. Includes bibliographies and index]. *Nihon Rinsho*. 2015;73(6):916-23.
24. Irfan M, Schenck CH, Howell MJ. Non-Rapid Eye Movement Sleep and Overlap Parasomnias. *Continuum (Minneapolis, Minn)*. 2017;23(4, Sleep Neurology):1035-50.
25. Frauscher B, Mitterling T, Bode A, Ehrmann L, Gabelia D, Biermayr M, et al. A prospective questionnaire study in 100 healthy sleepers: non-bothersome forms of recognizable sleep disorders are still present. *Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine*. 2014;10(6):623-9.

26. Schenck CH, Mahowald MW. A polysomnographically documented case of adult somnambulism with long-distance automobile driving and frequent nocturnal violence: parasomnia with continuing danger as a noninsane automatism? *Sleep*. 1995;18(9):765-72.
27. Lopez R, Jaussent I, Scholz S, Bayard S, Montplaisir J, Dauvilliers Y. Functional impairment in adult sleepwalkers: a case-control study. *Sleep*. 2013;36(3):345-51.
28. Perogamvros L, Aberg K, Gex-Fabry M, Perrig S, Cloninger CR, Schwartz S. Increased Reward-Related Behaviors during Sleep and Wakefulness in Sleepwalking and Idiopathic Nightmares. *PLoS one*. 2015;10(8):e0134504.
29. Oberholzer M, Poryazova R, Bassetti CL. Sleepwalking in Parkinson's disease: a questionnaire-based survey. *Journal of neurology*. 2011;258(7):1261-7.
30. Vetrugno R, Manconi M, Ferini-Strambi L, Provini F, Plazzi G, Montagna P. Nocturnal eating: sleep-related eating disorder or night eating syndrome? A videopolysomnographic study. *Sleep*. 2006;29(7):949-54.
31. Vinai P, Ferri R, Anelli M, Ferini-Strambi L, Zucconi M, Oldani A, et al. New data on psychological traits and sleep profiles of patients affected by nocturnal eating. *Sleep medicine*. 2015;16(6):746-53.
32. Bisulli F, Vignatelli L, Naldi I, Pittau F, Provini F, Plazzi G, et al. Diagnostic accuracy of a structured interview for nocturnal frontal lobe epilepsy (SINFLE): a proposal for developing diagnostic criteria. *Sleep medicine*. 2012;13(1):81-7.
33. Oudiette D, Leclair-Visonneau L, Arnulf I. Video-clinical corners. Snoring, penile erection and loss of reflexive consciousness during REM sleep behavior disorder. *Sleep medicine*. 2010;11(9):953-5.
34. Iranzo A, Molinuevo JL, Santamaría J, Serradell M, Martí MJ, Valldeoriola F, et al. Rapid-eye-movement sleep behaviour disorder as an early marker for a neurodegenerative disorder: a descriptive study. *The Lancet Neurology*. 2006;5(7):572-7.
35. Knudsen S, Gammeltoft S, Jennum PJ. Rapid eye movement sleep behaviour disorder in patients with narcolepsy is associated with hypocretin-1 deficiency. *Brain : a journal of neurology*. 2010;133(Pt 2):568-79.
36. Poryazova R, Oberholzer M, Baumann CR, Bassetti CL. REM sleep behavior disorder in Parkinson's disease: a questionnaire-based survey. *Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine*. 2013;9(1):55-9a.
37. Di Fabio N, Poryazova R, Oberholzer M, Baumann CR, Bassetti CL. Sleepwalking, REM sleep behaviour disorder and overlap parasomnia in patients with Parkinson's disease. *European neurology*. 2013;70(5-6):297-303.
38. Schenck CH, Montplaisir JY, Frauscher B, Hogg B, Gagnon JF, Postuma R, et al. Rapid eye movement sleep behavior disorder: devising controlled active treatment studies for symptomatic and neuroprotective therapy--a consensus statement from the International Rapid Eye Movement Sleep Behavior Disorder Study Group. *Sleep medicine*. 2013;14(8):795-806.

39. Zadra A, Desautels A, Petit D, Montplaisir J. Somnambulism: clinical aspects and pathophysiological hypotheses. *The Lancet Neurology*. 2013;12(3):285-94.
40. Nguyen-Michel VH, Solano O, Leu-Semenescu S, Pierre-Justin A, Gales A, Navarro V, et al. Rapid eye movement sleep behavior disorder or epileptic seizure during sleep? A video analysis of motor events. *Seizure*. 2018;58:1-5.
41. Bisulli F, Vignatelli L, Provini F, Leta C, Lugaresi E, Tinuper P. Parasomnias and nocturnal frontal lobe epilepsy (NFLE): lights and shadows--controversial points in the differential diagnosis. *Sleep medicine*. 2011;12 Suppl 2:S27-32.
42. Sharpless BA. A clinician's guide to recurrent isolated sleep paralysis. *Neuropsychiatric disease and treatment*. 2016;12:1761-7.
43. Denis D, Poerio GL. Terror and bliss? Commonalities and distinctions between sleep paralysis, lucid dreaming, and their associations with waking life experiences. *Journal of sleep research*. 2017;26(1):38-47.
44. Mellman TA, Aigbogun N, Graves RE, Lawson WB, Alim TN. Sleep paralysis and trauma, psychiatric symptoms and disorders in an adult African American population attending primary medical care. *Depression and anxiety*. 2008;25(5):435-40.
45. Oswald I. Sudden bodily jerks on falling asleep. *Brain : a journal of neurology*. 1959;82(1):92-103.
46. Frenette E, Guilleminault C. Nonepileptic paroxysmal sleep disorders. *Handbook of clinical neurology*. 2013;112:857-60.
47. Chiaro G, Calandra-Buonaura G, Sambati L, Cecere A, Ferri C, Caletti MT, et al. Hypnic jerks are an underestimated sleep motor phenomenon in patients with parkinsonism. A video-polysomnographic and neurophysiological study. *Sleep medicine*. 2016;26:37-44.
48. Leng Y, Blackwell T, Stone KL, Hoang TD, Redline S, Yaffe K. Periodic Limb Movements in Sleep are Associated with Greater Cognitive Decline in Older Men without Dementia. *Sleep*. 2016;39(10):1807-10.
49. Antelmi E, Provini F. Propriospinal myoclonus: The spectrum of clinical and neurophysiological phenotypes. 2014/12/17 ed2015 Aug. 54-63 p.
50. Woolfe M, Prime D, Tjoa L, O'Keefe S, Rowlands D, Dionisio S. Nocturnal motor events in epilepsy: Is there a defined physiological network? *Clinical neurophysiology : official journal of the International Federation of Clinical Neurophysiology*. 2019;130(9):1531-8.
51. Tosun T, Karabuda C, Cuhadaroglu C. Evaluation of sleep bruxism by polysomnographic analysis in patients with dental implants. *The International journal of oral & maxillofacial implants*. 2003;18(2):286-92.
52. Khoury S, Carra MC, Huynh N, Montplaisir J, Lavigne GJ. Sleep Bruxism-Tooth Grinding Prevalence, Characteristics and Familial Aggregation: A Large Cross-Sectional Survey and Polysomnographic Validation. *Sleep*. 2016;39(11):2049-56.
53. Slowik JM, Collen JE, Yow AG. Narcolepsy. *StatPearls*. Treasure Island (FL): StatPearls Publishing Copyright © 2022, StatPearls Publishing LLC.; 2022.

54. Reading PJ. Update on narcolepsy. *Journal of neurology*. 2019;266(7):1809-15.
55. Leschziner G. Narcolepsy: a clinical review. *Practical neurology*. 2014;14(5):323-31.
56. Gupta AK, Sahoo S, Grover S. Narcolepsy in Adolescence-A Missed Diagnosis: A Case Report. *Innovations in clinical neuroscience*. 2017;14(7-8):20-3.
57. Hao Z, Xu L, Zhang J, Lan X, Gao X, Han F. Anatomical characteristics of catathrenia (nocturnal groaning) in upper airway and orofacial structures. *Sleep & breathing = Schlaf & Atmung*. 2016;20(1):103-11.
58. Guilleminault C, Hagen CC, Khaja AM. Catathrenia: parasomnia or uncommon feature of sleep disordered breathing? *Sleep*. 2008;31(1):132-9.
59. Broughton R, Tolentino MA, Krelina M. Excessive fragmentary myoclonus in NREM sleep: a report of 38 cases. *Electroencephalography and clinical neurophysiology*. 1985;61(2):123-33.
60. Raccagni C, Löscher WN, Stefani A, Wanschitz J, Kraemer L, Heidbreder A, et al. Peripheral nerve function in patients with excessive fragmentary myoclonus during sleep. *Sleep medicine*. 2016;22:61-4.