

Sleep disorders in prodromal and clinical synucleinopathies: approach and management

Ambra Stefani, Neurological Clinical Research Institute

Massachusetts General Hospital

Boston, USA

Disclosure

None

Learning objectives

- Attendees will be able to recognize isolated rapid eye movement sleep behavior disorder as prodromal synucleinopathy and will learn how to correctly diagnose and manage this condition.
- After attending this teaching course, participants will be able to recognize the broad spectrum of sleep disorders affecting patients with clinical synucleinopathies, start the proper investigations to advance diagnostic processes according to international criteria and guidelines, and treat different sleep disorders in patients with synucleinopathies.

Key message

- Isolated REM sleep behavior disorder is a prodromal synucleinopathy
- REM sleep behavior disorder diagnosis requires polysomnography
- Sleep disorders are frequent in synucleinopathies
- Side effects of medications, in particular those acting on motor symptoms, need to be considered in the management of sleep disorders in people with synucleinopathies

References

- Rapid-Eye-Movement Sleep Behavior Disorder. Editors Carlos H. Schenck, Birgit Högl, Aleksandar Videnovic. DOI: <https://doi.org/10.1007/978-3-319-90152-7>. Springer International Publishing AG, part of Springer Nature 2019, 1st edition.
- American Academy of Sleep Medicine. International Classification of Sleep Disorders. 3rd ed, text revision. Darien, IL: American Academy of Sleep Medicine; 2023.
- Cesari M, Heidbreder A, St Louis EK, Sixel-Döring F, Bliwise DL, Baldelli L, Bes F, Fantini ML, Iranzo A, Knudsen-Heier S, Mayer G, McCarter S, Nepozitek J, Pavlova M, Provini F, Santamaria J, Sunwoo JS, Videnovic A, Högl B, Jennum P, Christensen JAE, Stefani A. Video-polysomnography procedures for diagnosis of rapid eye movement sleep behavior disorder (RBD) and the identification of its prodromal stages: guidelines from the International RBD Study Group. *Sleep*. 2022 Mar 14;45(3):zsab257. doi: 10.1093/sleep/zsab257. PMID: 34694408.
- Howell M, Avidan AY, Foldvary-Schaefer N, Malkani RG, During EH, Roland JP, McCarter SJ, Zak RS, Carandang G, Kazmi U, Ramar K. Management of REM sleep behavior disorder: an American Academy of Sleep Medicine clinical practice guideline. *J Clin Sleep Med*. 2023 Apr 1;19(4):759-768. doi: 10.5664/jcsm.10424. PMID: 36515157; PMCID: PMC10071384.
- Miglis MG, Adler CH, Antelmi E, Arnaldi D, Baldelli L, Boeve BF, Cesari M, Dall'Antonia I, Diederich NJ, Doppler K, Dušek P, Ferri R, Gagnon JF, Gan-Or Z, Hermann W, Högl B, Hu MT, Iranzo A, Janzen A, Kuzkina A, Lee JY, Leenders KL, Lewis SJG, Liguori C, Liu J, Lo C, Ehgoetz Martens KA, Nepozitek J, Plazzi G, Provini F, Puligheddu M, Rolinski M, Rusz J, Stefani A, Summers RLS, Yoo D, Zitser J, Oertel WH. Biomarkers of conversion to α-synucleinopathy in isolated rapid-eye-movement sleep behaviour disorder. *Lancet Neurol*. 2021 Aug;20(8):671-684. doi: 10.1016/S1474-4422(21)00176-9. PMID: 34302789; PMCID: PMC8600613.
- Högl B, Stefani A, Videnovic A. Idiopathic REM sleep behaviour disorder and neurodegeneration - an update. *Nat Rev Neurol*. 2018 Jan;14(1):40-55. doi: 10.1038/nrneurol.2017.157. Epub 2017 Nov 24. PMID: 29170501.
- Dauvilliers Y, Schenck CH, Postuma RB, Iranzo A, Luppi PH, Plazzi G, Montplaisir J, Boeve B. REM sleep behaviour disorder. *Nat Rev Dis Primers*. 2018 Aug 30;4(1):19. doi: 10.1038/s41572-018-0016-5. PMID: 30166532.
- Zhang H, Iranzo A, Högl B, Arnulf I, Ferini-Strambi L, Manni R, Miyamoto T, Oertel WH, Dauvilliers Y, Ju YE, Puligheddu M, Sonka K, Pelletier A, Montplaisir JY, Stefani A, Ibrahim A, Frauscher B, Leu-Semenescu S, Zucconi M, Terzaghi M, Miyamoto M, Janzen A, Figorilli M, Fantini ML, Postuma RB. Risk Factors for Phenoconversion in Rapid Eye Movement Sleep Behavior Disorder. *Ann Neurol*. 2022 Mar;91(3):404-416. doi: 10.1002/ana.26298. Epub 2022 Jan 24. PMID: 34981563.
- Stefani A, Högl B. Sleep in Parkinson's disease. *Neuropsychopharmacology*. 2020 Jan;45(1):121-128. doi: 10.1038/s41386-019-0448-y. Epub 2019 Jun 24. PMID: 31234200; PMCID: PMC6879568.
- Seppi K, Weintraub D, Coelho M, Perez-Lloret S, Fox SH, Katzenschlager R, Hametner EM, Poewe W, Rascol O, Goetz CG, Sampaio C. The Movement Disorder Society Evidence-Based Medicine Review Update: Treatments for the non-motor symptoms of Parkinson's disease. *Mov Disord*. 2011 Oct;26 Suppl 3(0 3):S42-80. doi: 10.1002/mds.23884. PMID: 22021174; PMCID: PMC4020145.