REM sleep behavior disorder: A Practical Guide

Ron Postuma

McGill University, Montreal, Canada

Objectives

- To recognize features of RBD
- To differentiate RBD from other parasomnias and mimics
- To accurately diagnose RBD
- To treat RBD symptomatically
- To accurately diagnose neurodegenerative disease using RBD
- To predict prognosis of neurodegenerative disease using RBD
- To understand the potential of RBD for future neuroprotection

Outline

Emphasis – Practical Guide (plus some future)

           - deeper dive into prediction = second talk

1. Clinical features of RBD

2. Diagnosis and Differential Diagnosis

3. Treatment

4. Implications of RBD
   - Diagnosis
   - Prognosis
   - Prediction

Key References

- Arnulf I. REM sleep behavior disorder: motor manifestations and pathophysiology. Mov Disord 2012;27:677–89.

- American Academy of Sleep Medicine. The international classification of sleep disorders, 3rd ed. Diagnostic and coding manual. Westchester, IL: American Academy of Sleep Medicine

- Schenck CH, Montplaisir JY, Frauscher B, 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 Med 2013;14:795–806

- Boeve BF, Silber MH, Ferman TJ, et al. Clinicopathologic correlations in 172 cases of rapid eye movement sleep behavior disorder with or without a coexisting neurologic disorder. Sleep Med 2013;14:754–62.

- Romenets SR, Gagnon JF, Latreille V, et al. Rapid eye movement sleep behavior disorder and subtypes of Parkinson's disease. Mov Disord 2012;27:996–1003.

- Berg D, Postuma RB, Adler CH, et al. MDS research criteria for prodromal Parkinson's disease. Mov Disord 2015;30:1600–11.

- Postuma RB, Iranzo A, Hu M, Högl B, Boeve BF, Manni R, Oertel WH, Arnulf I, Ferini-Strambi L, Puligheddu M, Antelmi E, Cochen De Cock V, Arnaldi D, Mollenhauer B, Videnovic A, Sonka K, Jung KY, Kunz D, Dauvilliers Y, Provini F, Lewis SJ, Buskova J, Pavlova M, Heidbreder A, Montplaisir JY, Santamaria J, Barber TR, Stefani A, St Louis EK, Terzaghi M, Janzen A, Leu-Semenescu S, Plazzi G, Nobili F, Sixel-Doering F, Dusek P, Bes F, Cortelli P, Ehgoetz Martens K, Gagnon JF, Gaig C, Zucconi M, Trenkwalder C, Gan-Or Z, Lo C, Rolinski M, Mahlknecht P, Holzknecht E, Boeve AR, Teigen LN, Toscano G, Mayer G, Morbelli S, Dawson B, Pelletier A. "Risk and predictors of dementia and parkinsonism in idiopathic REM sleep behaviour disorder: a multicentre study". *Brain*. 2019 Mar 1;142(3):744-759.

Key Messages

1. RBD – dream enactment
   - Main differential diagnosis = NREM (half-asleep, half-awake)
   - Ultimate diagnosis = polysomnogram (no REM atonia)
2. Treatment – bed safety, clonazepam, perhaps melatonin
3. RBD has implications for neurodegeneration
   - Diagnosis – identifies synucleinopathy (both parkinsonism and dementia)
   - Prognosis – poor prognostic sign
   - Prediction – strongest known predictor of neurodegeneration