

REM Sleep Behavior Disorder as a unique window into degeneration: the role of sleep, dreaming, cognition and mood

Friday, September 12, 2025 4:30 PM (20 minutes)

Sleep is fundamental for physical, emotional, and cognitive well-being across the lifespan, with its restorative functions becoming increasingly critical in aging. In older adults, sleep alterations are not only frequent but may also signal the early onset of neurodegenerative processes. Among these, REM sleep Behavior Disorder (RBD) has emerged as a key model representing a prodromal stage of alpha-synucleinopathies. Studying sleep and its disruptions in late life provides a unique window into brain health, offering early biomarkers. In this context, this contribution aims to retrace literature and experimental evidence focused on the investigation of electrophysiological, cognitive, and psychological markers predictive of RBD phenoconversion. Particular emphasis will be given to Slow Wave Activity (SWA), hallmark of non-REM (NREM) sleep, which plays a crucial role in brain waste clearance and has been increasingly linked to neurodegenerative risk. Moreover, SWA reduction has been associated with memory and executive function decline during aging and in neurodegenerative conditions. Moreover, experimental evidence about the association between dreaming features and cognitive functioning in RBD will be examined. Beyond the electrophysiological and cognitive markers, the role of mood symptoms in neurodegenerative trajectories will be addressed. In synucleinopathies, psychiatric comorbidities accelerate disability, increasing the risk of late-stage complications and leading to poor quality of life. This contribution highlights how the knowledge of RBD offers a unique perspective on the early signs of neurodegeneration, enriching the discussion on sleep and quality of life across the lifespan and reinforcing the relevance of experimental psychology in advancing early detection and intervention strategies.

If you're submitting a symposium talk, what's the symposium title?

Innovative approaches to sleep and well-being: Methodological and research implications

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Yes

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Session Classification: Innovative approaches to sleep and well-being: Methodological and research implications