

# REM Behavior Disorder. Not all is about Synucleinopathy

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REM behavior disorder (RBD) is a type of parasomnia that arises during the REM phase of sleep. Physiologically, REM phase is characterized by atonia. It is probable the portion of sleep on which dreams are more vivid and frequently remembered. However, in subjects suffering RBD REM atonia is absent, and therefore they enact their dreams, conducting abnormal behaviors, with violent movements, often kicking or punching. It is frequently the patient's bed partner who decides to ask for a medical opinion. Other times the patient suffers any injury related with the involuntary movements. When awakened, the patient can easily describe the content of the dream he was on. Dreams are usually about violent situations, for example being attacked or assaulted, and they try to defend themselves. For this reason, the movements tend to be vigorous and violent, and they are often accompanied by shouts or vocalizations. RBD patients do not usually leave the bed or walk during the episodes, which differentiates it from non-REM parasomnia (sleepwalking, sleep terrors and confusional arousals). Non-REM parasomnia tends to occur during the first third of sleep period, when non-REM predominates. Conversely, RBD occur during the last third of sleep period.

The estimated prevalence of RBD is 0.5%-2%. It is more frequent in males after 50 years old, below this age no significant differences are observed depending on the sex.

Two different types of RBD have been described: idiopathic and secondary RBD. Idiopathic RBD is the most well-known by neurologists because its relation with synucleinopathies. Therefore, the idiopathic form cannot be described as innocent sleep abnormality since most of the patients will present symptoms of Parkinson's disease, corticobasal degeneration or multiple system atrophy during the follow-up. The rates of phenoconversion from idiopathic RBD are 35% at 5 years, 73% at 10 years, and 92.5% at 14 years (1).

However, secondary RBD is probably less well-known and it is often not properly identified in daily clinical practice. Secondary forms should be considered in first place when the patient is less than 50 years old. Among the conditions associated with RBD, we find autoimmune disorder (e.g. narcolepsy and anti-IgLON5 disease), structural lesions that affect brainstem, limbic structures (amygdala), or pathways that modulate REM sleep atonia, and the use of certain drugs. Drugs that can precipitate or worsen RBD include antidepressants (especially selective serotonin reuptake inhibitors) and lipophilic beta-blockers. As these drugs are commonly used, it is important to be aware about this fact. Usually discontinuing the drug makes RBD resolve. However, when it persists, thinking about an underlying neurodegenerative process and follow-up the patient closely is mandatory.

Therefore, whenever we face a patient who consults for abnormal behavior during sleep, RBD should be considered, as well as nocturnal epilepsy and non-REM parasomnias. An exhaustive clinical evaluation, a complete physical examination, and a polysomnography study are crucial, as well as neuroimaging exam. Beyond the RBD related with synucleinopathy, secondary forms should be considered, especially in patients below 50 years old.

## References

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