

REM sleep without atonia with REM sleep–related motor events: broadening the spectrum of REM sleep behavior disorder

Raffaele Ferri, Debora Aricò, Filomena I I Cosentino, Bartolo Lanuzza, Giacomo Chiaro, Mauro Manconi

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Abstract

Study Objectives

To assess the presence of increased REM-related motor activity during sleep, by questionnaires for REM sleep behavior disorder (RBD), in participants with “isolated” REM sleep without atonia (RWA).

Participants and Methods

Two hundred forty-nine patients were consecutively enrolled, with age ≥ 18 years, sharing bedroom with a roommate, and without a severe health, neurological, or cognitive problem. Motor activity during sleep was assessed by means of the RBD Screening Questionnaire (RBDSQ) and the RBD questionnaire-Hong Kong (RBDQ-HK). A video-polysomnographic recording was obtained and the REM Atonia Index was computed. Thirteen participants were diagnosed to have RBD while the remaining 236 were subdivided into two subgroups: 34 participants with “low” (< 0.8) and 202 participants with “high” Atonia Index (≥ 0.8).

Results

RBDSQ and RBDQ-HK were both higher in participants with low Atonia Index than in those with high Atonia Index, as well as number of drugs taken and number of comorbidities. No effect of antidepressant use was found on Atonia Index and a multiple-regression analysis showed that Atonia Index was significantly (inversely) correlated only with the behavioral score obtained with the RBDQ-HK.

Conclusions

Our study shows that individuals with isolated RWA have an increased motor activity/behavioral pattern during sleep, although this activity does not allow us to diagnose RBD. Our findings broaden the spectrum of RBD and the condition that we have identified should be better characterized in order to understand its eventual development into fully blown RBD or not.

REM sleep behavior disorder, subclinical RBD, REM sleep without atonia, isolated RWA

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