THEORETICAL ESSAYS

Sleep Science

Rapid-eye-movement sleep behavior disorder: book review

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ABSTRACT

This review concerns the first systematic work on REM Behavior Disorder (RBD) etiology, physiopathology, diagnosis, clinical management, as well as new trends on genetic research. It represents massive expert cooperation involving multinational specialists and provides a valuable tool for further comprehension of this sleep condition.

Keywords: Sleep; Sleep, REM; REM Sleep Behavior Disorder; REM Sleep Parasomnias.

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This book represents a new and objective way to look under the curtains of REM sleep and its behavioral disturbances.

Already at the introduction chapter "RBD in a Nutshell"[1] the purpose of innovation and comprehension is perceived. There, the basic features of the book are explained, allowing to understand that the chapters form themselves a tight unit, but that they can also be re-arranged according to the reader's taste. Thus it seems clear that it is not about one single book we are talking about but instead, a multitude, according to the researcher/clinician interest. To put this tendency in a nutshell one can also remark the very useful repartition mode suggested further away in the introductory chapter by which this book can also be divided in modules by order of interest (I to XI), rupturing the normal sequencing of chapters while still keeping the unity of the work.

The writing structure is neat and easy to read. The style is clear most of the time (some misunderstanding might happen with chapters signed by non-English speaker authors). The chapters are divided into numbered subtopics that present all the complexity of RBD studies in a logical and comprehensive way. Each chapter ends with a conclusion item and also points out relevant aspects of the subject discussed as well as future research perspectives.

This text has also the advantage of gathering an impressive amount of qualified collaboration, including neuroscientists in clinical and basic science. The book comprises VI parts with a variable number of chapters: I. Introduction, II. Clinical Spectrum of RBD, III. Diagnosis and Treatment, IV. Clinical Research and Issues, V. Basic Science and VI. Challenges and Opportunities.

The Introduction-Part I comprises the historical perspective of RBD since its first systematic description during the '80s, by Drs. Mahowald and Schenck's group until the foundation of the International RBD Study Group in Ascona, Switzerland in 2009. This part of the book brings us some patient's testimonies on repercussions of such a sleep problem in their lives. Some of this chapter is based on Dr. Schenck's previous book "Paradox Lost", in which we can find pungent interviews with RBD patients and families. This approach brings out a particular dimension of the sleep behavioral problems, not frequently depicted in most writings on this subject.

Part II includes clinical aspects of RBD and its association with neurodegenerative brain conditions, synucleinopathies or else, or yet secondary to different neurological causes (paraneoplastic, structural lesions, medications, etc). The last chapter, on the dreaming process in RBD and also in NREM parasomnias, comments on diverse theories on the process of dreaming and enacting dreams, serving an extraordinary update on a subject not well explored in RBD studies i.e., the origin of the dreaming and the reasons why its content is so violent.

Part III brings us a quite comprehensive review of video-polysomnographic diagnostic methods and best practices on treatment and general management of RBD. The illustration of some RBD clinical cases, with extended documentation and comments, helps to clarify the clinical features, a valuable resource for clinical practice.

Part IV includes some aspects of clinical research and issues on RBD like the new brain and non-brain imaging techniques on diagnosis, interplay with the autonomic nervous system, cognitive deficits, and research for biomarkers of neurodegeneration. Being RBD so frequently associated with slowly progressive neurodegeneration, this chapter appropriately fosters the importance of early diagnosis, establishing directives for pre-emptive treatment strategies.

Part V is an inclusive sequence of chapters on Basic Science issues on RBD studies, including those on animal models, human neuropathology and discussion of a possible link between synucleinopathies and REM sleep physiology. The highlights of this part lie on the specialized view on genetic studies on synucleinopathy-associated RBD. Albeit dealing with still limited data, the authors state on a very tangible genetic background for RBD.

Part VI closes the book with two chapters comprising future perspectives and suggestions not only on RBD clinical research but also on the management (clinical care and managing) of patients. Some relevant definitions should be acknowledged at this point e.g., the "Parkinson pandemic", the importance of the polysomnographic study as a possible biomarker of neurodegeneration and the concept of prodromal RBD. Its novel definition as "clinically isolated RBD", suggested by the authors, brings more comfort under the light of the ever-growing research data on causative pathologic processes in course.

To sum up, Rapid-Eye-Movement Sleep Behavior Disorder by Schenck et al, is a very complete and necessary work, obligatory reading to all interested in this medical condition, which is a natural model for insertion in the exploration of the sleeping brain circuits and also of the depths of human behavior during sleep.

REFERENCE

1. Schenck CH, Högl B, Videnovic A, eds. Rapid-Eye-Movement Sleep Behavior Disorder. Cham: Springer International Publishing; 2019. 678 p.