



REVIEW

Recent Advances in the Treatment of Treatment-Resistant Depression: A Narrative Review of Literature Published from 2018 to 2023

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Abstract

Purpose of Review We review recent advances in the treatment of treatment-resistant depression (TRD), a disorder with very limited treatment options until recently. We examine advances in psychotherapeutic, psychopharmacologic, and interventional psychiatry approaches to treatment of TRD. We also highlight various definitions of TRD in recent scientific literature.

Recent Findings Recent evidence suggests some forms of psychotherapy can be effective as adjunctive treatments for TRD, but not as monotherapies alone. Little recent evidence supports the use of adjunctive non-antidepressant pharmacotherapies such as buprenorphine and antipsychotics for the treatment of TRD; side effects and increased medication discontinuation rates may outweigh the benefits of these adjunctive pharmacotherapies. Finally, a wealth of recent evidence supports the use of interventional approaches such as electroconvulsive therapy, ketamine/esketamine, and transcranial magnetic stimulation for TRD.

Summary Recent advances in our understanding of how to treat TRD have largely expanded our knowledge of best practices in, and efficacy of, interventional psychiatric approaches. Recent research has used a variety of TRD definitions for study inclusion criteria; research on TRD should adhere to inclusion criteria based on internationally defined guidelines for more meaningfully generalizable results.

Keywords Treatment-resistant depression (TRD) · Major depressive disorder (MDD) · Electroconvulsive therapy (ECT) · Transcranial magnetic stimulation (TMS) · Ketamine · Esketamine · Pharmacotherapy

Introduction

While there is no universally accepted definition, treatment-resistant depression (TRD) often refers to a condition of those with major depressive disorder (MDD) whose

depression fails to respond to at least two trials of antidepressants [1, 2, 3••]. TRD is highly prevalent in the US with a yearly incidence of 2.8 million people, 30.9% of those 8.9 million treated for MDD [4]. Treating TRD poses a challenge, with risk factors of TRD including many psychiatric comorbidities, greater depression severity, and older age [5–7]. Patients with TRD have higher rates of psychiatric comorbidities, have more severe depression, and exhibit substantially higher rates of suicide risk relative to those with non-resistant MDD, stressing the need for more effective treatments [8–11]. Moreover, those with TRD cost health systems more per-patient compared to those with non-resistant MDD, reflecting higher rates of hospitalizations and multiple medication trials [12–14]. The need to develop novel treatments for TRD is thus both an epidemiological and financial imperative [15].

Treatments for TRD have historically relied on pharmacotherapy employing strategies of optimization, combination, switching, and augmentation, each on an individual basis [16]. Optimization consists of adjusting antidepressant (AD) dose or duration length to seek a clinical response,

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Recent Advances In Depression

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Recent Advances In Depression:

Recent Advances and Challenges in the Treatment of Major Depressive Disorder Yong-Ku Kim, 2024-09-12 This book reviews all aspects of major depressive disorder MDD casting light on its neurobiological underpinnings and describing the most recent advances in management The book is divided into four sections the first of which discusses MDD from a network science perspective highlighting the alterations in functional and structural connectivity and presenting insights achieved through resting state functional MRI and the development of neuroimaging based biomarkers The second section examines important diagnostic and neurobiological issues while the third considers the currently available specific treatments for MDD including biofeedback neurofeedback cognitive behavioral therapy acceptance and commitment therapy neuromodulation therapy psychodynamic therapy and complementary and alternative medicine A concluding section is devoted to promising emerging treatments from novel psychopharmacological therapies through to virtual reality treatment immunotherapy biomarker guided tailored therapy and more Written by leading experts from across the world the book will be an excellent source of information for both researchers and practitioners

Recent Advances in the Psychobiology of the Depressive Illnesses Thomas A. Williams, Martin M. Katz, James Asa Shield, 1972

Recent Advances in the Psychobiology of the Depressive Illnesses; Proceedings of a Workshop Sponsored by the Clinical Research Branch, Division of Extramural Research Programs National Institute of Mental Health (U.S.), 1972

Recent Advances on the Multimodal Search for Markers of Treatment Response in Affective Disorders: From Bench to Bedside? Frank M Schmidt, Christian Sander, Martin Walter, 2019-11-28

Recent Advances in Theories and Practice of Chinese Medicine Haixue Kuang, 2012-01-18 During the recent years traditional Chinese medicine TCM has attracted the attention of researchers all over the world It is looked upon not only as a bright pearl but also a treasure house of ancient Chinese culture Nowadays TCM has become a subject area with high potential and the possibility for original innovation This book titled *Recent Advances in Theories and Practice of Chinese Medicine* provides an authoritative and cutting edge insight into TCM research including its basic theories diagnostic approach current clinical applications latest advances and more It discusses many often neglected important issues such as the theory of TCM property and how to carry out TCM research in the direction of TCM property theory using modern scientific technology The authors of this book comprise an international group of recognized researchers who possess abundant clinical knowledge and research background due to their years of practicing TCM Hopefully this book will help our readers gain a deeper understanding of the unique characteristics of Chinese medicine

Clinical Psychiatry: Recent Advances and Future Directions, An Issue of Psychiatric Clinics of North America David Baron, 2015-09-07 Recent advances in clinical psychiatry are presented by David Baron and Lawrence Gross in this issue of *Psychiatric Clinics* Psychiatrists will find here disorders they deal with daily in patients and topics

include Advances in Addictive disorders Geriatric and healthy aging Trauma and violence PTSD Schizophrenia Intellectual disabilities Neuropsychiatry Psychopharmacology Integrated care psychiatry and primary care Global and cultural psychiatry Mood disorders Also presented are the Future role of psychotherapy in psychiatry Public mental health in the Affordable Care Act era Genetics and Diagnostic classification DSM criteria how they are transitioning in future DSM V and beyond

From West to East: Recent Advances in Psychometrics and Psychological Instruments in Asia Mengcheng Wang, Yiyun Shou, Joseph Wu, Hui-Fang Chen, Cheng-Ta Yang, Kazuhisa Takemura, 2022-03-03 **Depression and Dementia** Suptendra Nath Sarbadhikari, 2005 Many of the mechanisms of brain action in health as well as diseases like depression and dementia are non linear The psychomotor theory can shed some light on the brain mind body interaction in health and disease Specific neurotransmitters through their different receptor subtypes ultimately act along some final common pathway in a lateralised fashion to produce depression and dementia The currently available neurochemical and genetic evidences and their correlation with life events from population based studies may be useful in screening susceptibility to dementia and depression Further criteria may be set up for susceptibility to these diseases and they might help designing early interventions in prevention of depression and dementia The breakdown of the BBB Blood brain barrier through Heat Shock Protein HSP is also responsible for many neurodegenerative diseases Aggressive and individualised management of patients suffering from depression and dementia may be the most promising gift of medical science and technology to humanity Nonlinear dynamic analysis NDA of EEG electroencephalography may aid in the differential diagnosis of dementias However the methodologies have to be standardised further to make it clinically acceptable universally ERPs event related potentials in EEG can be of great help in diagnosis and also assessing prognosis of dementias Finally fusion or hybrid techniques especially those incorporating fMRI or functional magnetic resonance imaging along with qEEG or quantitative EEG can be of immense help in diagnosing managing and predicting the prognosis of depression and dementia This book discusses the above issues and offers an important update in the area of depression and dementia *New Advances in Neurorehabilitation* Nicola Smania, Stefano Tamburin, Giorgio Sandrini, Leopold Saltuari, Volker Hoemberg, 2019-12-24

Proceedings of World Conference on Artificial Intelligence: Advances and Applications Ashish Kumar Tripathi, Darpan Anand, Atulya K. Nagar, 2023-11-01 This book is a collection of outstanding research papers presented at the World Conference on Artificial Intelligence Advances and Applications WCAIAA 2023 organized by Sir Padampat Singhania University India and is technically sponsored by Soft Computing Research Society during March 18 19 2023 The topics covered are agent based systems evolutionary algorithms approximate reasoning bioinformatics and computational biology artificial intelligence in modeling and simulation natural language processing brain machine interfaces collective intelligence computer vision and speech understanding data mining swarm intelligence machine learning human computer interaction intelligent sensor devices and applications and intelligent database systems *Current Catalog* National Library of

Medicine (U.S.),1983 First multi year cumulation covers six years 1965 70 The Neuroscience of Depression Colin R. Martin,Lan-Anh Hunter,Vinood Patel,Victor R Preedy,Rajkumar Rajendram,2021-04-30 The Neuroscience of Depression Genetics Cell Biology Neurology Behaviour and Diet is a comprehensive reference to the aspects features and effects of depression This book provides readers with the behavior and psychopathological effects of depression linking anxiety anger and PTSD to depression Readers are provided with a detailed outline of the genetic aspects of depression including synaptic genes and the genome wide association studies GWAS of depression followed by a thorough analysis of the neurological and imaging techniques used to study depression This book also includes three full sections on the various effects of depression including diet nutrition and molecular and cellular effects The Neuroscience of Depression Genetics Cell Biology Neurology Behaviour and Diet is the only resource for researchers and practitioners studying depression The Neuroscience of Depression Features Diagnosis and Treatment Covers a pharmacological and behavioral treatment options Features sections on diagnosis and biomarkers of depression Discusses depression in children teens and adults Contains information on comorbidity of physical and mental conditions Includes more than 250 illustrations and tables The Neuroscience of Depression Genetics Cell Biology Neurology Behaviour and Diet Features a section on neurological and imaging including SPECT Neuroimaging Analyzes how diet and nutrition effect depression Examines the molecular and cellular effects of depression Covers genetics of depression Includes more than 250 illustrations and tables **National Library of Medicine Current Catalog** National Library of Medicine (U.S.),1971 Advanced Visual Interfaces. Supporting Artificial Intelligence and Big Data Applications Thoralf Reis,Marco X. Bornschlegl,Marco Angelini,Matthias L. Hemmje,2021-02-02 This book constitutes the thoroughly refereed post workshop proceedings of the AVI 2020 Workshop on Road Mapping Infrastructures for Artificial Intelligence Supporting Advanced Visual Big Data Analysis AVI BDA 2020 held in Ischia Italy in June 2020 and the Second Italian Workshop on Visualization and Visual Analytics held in Ischia Italy in September 2020 The 14 regular papers in this volume present topics such as big data collection management and curation big data analytics big data interaction and perception big data insight and effectuation configuration and management of big data storage and compute infrastructures services and tools advanced visual interaction in big data applications user empowerment and meta design in big data applications prediction and automation of big data analysis workflows as well as data visualization information visualization visual analytics infographics and design Recent Advances in Indian Medical Anthropology P.C. Joshi,Chakraverti Mahajan,2021-01-01 Medical Anthropology is one of the fastest growing sub disciplines of anthropology At a time when traditional medicines and alternative and complementary medicines are creating an important space within the domain of health care medical anthropology with its specialized methodology and holistic perspective is becoming crucial subject In Indian context the creation of separate Ministry of AYUSH and importance given to traditional knowledge in the field of medicines has necessitated that the scattered knowledge located in the remote tribal and isolated rural areas be

compiled and consolidated This volume provides multifaceted insights into the current research in Medical Anthropology in India Providing inputs from seasoned as well as budding anthropologists it discusses the issues of disciplinary discourses healing strategies mental health and well being gender and health and health policy in diverse contexts

Depressive Disorders Helen Herrman, Mario Maj, Norman Sartorius, 2009-06-10 Depressive disorders have profound social and economic consequences owing to the suffering and disability they cause They often occur together with somatic illness which worsens the prognosis of both Prevention detection and optimal treatment of these disorders are therefore of great clinical and economic importance This edition of the first title in the acclaimed Evidence Experience series from the World Psychiatric Association has been fully revised and features a new section on depression in primary care the main channel for the management of these disorders in countries around the world The format remains a systematic review of each topic evaluating published evidence complemented by up to six commentaries in which experts provide valuable insight gained from clinical experience All the evidence systematically reviewed and analysed in one place Practical context imparted in expert commentaries from around the world which were highly popular in the previous edition Provides an unbiased and reliable reference source for practising psychiatrists and physicians everywhere Features a new section on the treatment of depression in primary care Edited by a highly experienced internationally renowned team This book will be informative and stimulating reading for everyone working with people with depressive disorders in all countries and settings psychiatrists psychologists primary care physicians and other mental healthcare professionals Review of the first edition The discussion papers are excellent I strongly recommend this masterfully edited book which remarkably succeeds in combining research evidence and clinical experience It is probably the most helpful update on depression available today both for the researcher in mood disorders and the practising clinician S Grandi in Psychotherapy and Psychosomatics 2000 *Journal of Rehabilitation Research & Development* ,2008 [Journal of Rehabilitation Research and Development](#) ,2008 *Advances in Knowledge Discovery and Data Mining* João Gama, Tianrui Li, Yang Yu, Enhong Chen, Yu Zheng, Fei Teng, 2022-05-10 The 3 volume set LNAI 13280 LNAI 13281 and LNAI 13282 constitutes the proceedings of the 26th Pacific Asia Conference on Advances in Knowledge Discovery and Data Mining PAKDD 2022 which was held during May 2022 in Chengdu China The 121 papers included in the proceedings were carefully reviewed and selected from a total of 558 submissions They were organized in topical sections as follows Part I Data Science and Big Data Technologies Part II Foundations and Part III Applications

Recent Advances In Depression Book Review: Unveiling the Power of Words

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