

### Psychiatry and Heart Disease: The Mind, Brain, and Heart

edited by Michelle B. Riba, MD, MS; Lawson Wulsin, MD; and Melvyn Rubenfire, MD. Wiley-Blackwell, New York, NY, 2012, 257 pages, \$99.95 (hardcover).

*Psychiatry and Heart Disease* is a unique book that attempts to bridge the gap between psychiatry and primary care. It is the product of collaboration between psychiatrists and cardiologists. This book's importance stems from its focus on the world's number one killer, heart disease,<sup>1</sup> and discusses 2 of the leading causes of disability in the world, cardiovascular disease and depression. The World Health Organization reports that in 2020 depression is projected to reach second place in the ranking of global burden of disease.<sup>2</sup> This volume appears as there is a growing awareness of the complex interaction between depression and physical illness. Depression is associated with increased mortality after acute myocardial infarction<sup>3</sup> and stroke.<sup>4</sup> This volume is a Herculean effort to assist psychiatrists in understanding the pathophysiology of cardiovascular disease and recognizing the unique challenges for patients and physicians alike. It is a superb handbook to help primary care physicians and cardiologists realize that depression is a systemic illness that should be in the curriculum of both medical specialties.<sup>5</sup> Although the relationship between the two disorders consists mostly of associated phenomena to date, it is expected that some of these risk variables will be shown to be causative in time. This presentation is an exciting journey from basic science to clinical management of some of the most common conditions in medicine.

The book is loosely organized in 3 sections. Each chapter is written by experts in psychiatry and cardiology who do a thorough job of reviewing the basic pathophysiology of cardiovascular disease and synthesizing the latest research. Clinical vignettes are provided to illustrate important points and facilitate further discussion. The first section discusses the association between psychological distress and heart disease, including cardiovascular risk factors. It provides a good review of basic cardiology for psychiatrists; however, this section may be viewed as too basic for our cardiology colleagues. The authors provide a thorough review of the literature on depression associated with cardiovascular disease and of pathophysiology, and also suggest treatment strategies. In addition, this section describes unique psychiatric challenges faced by patients undergoing cardiac transplantation and coronary artery bypass graft procedures, as well as resuscitated survivors of sudden cardiac death. The authors also discuss an automated implantable cardioverter-defibrillator placement and psychiatric comorbidities experienced by these patients.

The second section is devoted to exploring the effects of psychiatric conditions and their treatments on the cardiovascular system. It provides a basic overview of common psychiatric conditions, which constitutes a helpful review for cardiologists, but may be too abecedary for a psychiatrist. Kerber and Rubenfire review the major treatment studies SADHART, CREATE, and ENRICH in a balanced way and emphasize that the treatment of depression after myocardial infarction is good clinical practice despite the fact that such treatment has *not* been found to be a protective factor for cardiac disease. Although connections between major depressive disorder and congestive heart failure (CHF) are hypothesized (hypothalamic-pituitary-adrenal axis dysregulation, nitric oxide dysregulation, inflammation, and sleep disordered breathing), the authors conclude that CHF may have more distinct pathophysiologic mechanisms. While  $\beta$ -blockers help to reduce mortality and morbidity in heart failure, adding a selective serotonin reuptake inhibitor or tricyclic antidepressant can also increase cardiovascular risk.

The authors describe the differences between the symptoms of psychiatric and cardiovascular disorders. They delve into the

challenges of treatment of several psychiatric conditions, namely, posttraumatic stress disorder and bipolar disorder. Sleep disorders and their relationship with cardiovascular disorders are presented.

In the final section, genetic susceptibility and the importance of exercise to both physical and mental health as well as the detrimental effects of tobacco and drugs on the cardiovascular system are discussed. Villafuerte, Rubenfire, and Kronfol report on genetic linkage studies showing that both depression and coronary artery disease may be mediated by some of the same genetic factors. The use of psychotropics in this population and drug-drug interactions, as well as adverse side effects, are described. The authors conclude by reviewing cardiovascular drug side effects and provide common screening devices for the assessment of depression.

Although this book is a collaborative effort, the authors do not discuss collaborative care, which has been shown by Wayne Katon and the Washington University group to significantly improve the management of medical disease and depression.<sup>6</sup> A more detailed discussion about specific treatments, settings, and management strategies would be useful, for example, exploring when hospitalized patients should be treated on medical or psychiatric units. The book would be enhanced by the inclusion of treatment guidelines and indications for and approaches to referral to a specialist, for example, a psychiatrist or a cardiologist. The treatment of noncompliance was not sufficiently addressed. Nor was the conundrum of knowing the origin of vegetative signs: anorexia, insomnia, decreased libido, and diminished energy may not be part of the depressive profile of symptoms if they have a physiologic origin (*DSM-IV-TR*).<sup>7</sup> Therefore, depression can be overdiagnosed or underdiagnosed by common depressive screening devices in patients with medical illness.

This book represents a necessary shift toward integrating psychiatry, cardiology, and primary care, as many of the conditions described in this book are actually treated by primary care physicians. It is a valuable resource not only for the consultation-liaison psychiatrist, but for any mental health practitioner, primary care physician, or cardiologist.

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