Indian J Med Res 146, July 2017, pp 142-146

DOI: 10.4103/0971-5916.219022

## **Book Reviews**

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Pain in psychiatric disorders, D.P. Finn, B.E. Leonard, editors (Karger, Basel, Switzerland) 2015. 182 pages. Price: US\$ 164.00/CHF 139.00/ EUR 130.00

## ISBN 978-3-318-05573-3

This book is a collection of state-of-the-art reviews on the complex interplay between pain and psychiatric disorders. This book is part of an ongoing series of monographs, titled 'Modern Trends in Pharmacopsychiatry' This particular volume summarizes the current evidence on pain in psychiatric disorders, and aims to provide the reader with a basis for further research and clinical practice in pain medicine and its interface with psychiatry. The reviews cover both preclinical and clinical research on pain in anxiety, depression and borderline personality disorder, with a strong focus on neurobiological mechanisms and therapeutic targets.

The book is divided into 12 chapters under four conceptual sections dealing with the bidirectional interactions between pain and psychiatric disorders. The first section includes a single chapter providing an educational discourse into various animal models of anxiety and depression (learned helplessness, anhedonia) and models for measuring cognitive effects of chronic pain in animals. This chapter would be of particular interest to researchers working in this field and is supported by up-to-date research literature. The second section has three chapters detailing the relationship between inflammation, depression and

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pain. The psycho-neuroendocrine hypothesis of psychiatric disorders (especially depression) is well established and these chapters make a good primer for understanding the molecular pathways connecting pain and depression. Evidence on how stress may be a common intermediary between chronic inflammation and depression is also provided along with novel approaches for development of drugs that may affect psychiatric disorders by controlling inflammation. The third section (chapters 5-7) focusses on the role of biogenic amines, Supraspinal Transient Receptor Potential subfamily V member 1 (TRPV1) and neuroactive steroids in mediating pain and psychiatric disorders. The role of TRPV1, discovered initially as a receptor of capsaicin, is of particular interest, as recent evidence points towards its role in all nociception modulation. TRPV1 in the brain, therefore, may represent a novel therapeutic target for chronic pain conditions. The final chapter of the section discusses the role of neuroactive steroids on gamma-aminonutyric acid (GABA) -A and glutamate NMDA (N-methyl-D-aspartate) receptors, a common thread in the causation of major depressive disorder, generalized anxiety, panic disorder and social anxiety disorder.

The last section (chapters 8-12) attempts to understand the clinical manifestations of pain in different psychiatric disorders. Although individually the chapters are interesting, this section suffers from a lack of cohesion and continuity. Chapter 8 discusses the relationship between visceral pain and stress related disorders and the role of brain-gut-microbiome axis in modulation of digestive process, immune function and emotional response. Chapter 9 deals with genetic and epigenetic mechanisms linking pain and psychiatric disorders and makes an interesting read as it has been extremely difficult to identify specific genes for pain. The chapter discusses the four major human genes involved in epigenetic-depression studies. Chapter 10 reviews the emotional and cognitive influences on pain experience and discusses the effect of factors such as expectancy, appraisal and awareness on nociceptive modulation. The penultimate chapter discusses the relationship between generalized anxiety disorder and pain, focusing on neuro-biological background of the occurrence of both, while the final chapter discusses pain processing in patients with Borderline Personality Disorder (BPD). The final chapter draws attention to altered pain processing in prefrontal

and limbic brain areas of BPD patients which may explain their reduced pain sensitivity and propensity for self-injurious behaviour.

Pain is a major comorbidity in many psychiatric disorders like depression and anxiety, adding significantly to the overall disability. Additionally, pain is a common presenting symptom of psychosomatic and somatoform disorders. Although pain medicine has seen intense research in the past decade, psychological and psychiatric concomitants of pain are still under-researched. Therefore, the book is topical and relevant with brief, well-edited chapters. However, the chapters are not well connected to each other and the reader is often at a loss about the general purpose and direction of the book. At best it serves as a series of reviews, highlighting certain areas of current research in pain medicine. Despite the name and aim of the book to be an authoritative summary of the bidirectional relationship between psychiatry and pain, the book is primarily focused on the molecular, genetic and neurochemical pathways of pain. Even the last two chapters on anxiety and borderline personality are biased towards the biological pathways of causation rather than a balanced review of the topic. Psychiatry students and practitioners will be disappointed by the lack of any discussion about the clinical presentation, diagnostic pointers, course and outcome or management guidance about pain in this book. The book is rather more suited as a reference point for scholars in the field of translational research in pain medicine, as endorsed by the fact that most of the chapters (9 out of 12) are authored by researchers in preclinical subjects like anatomy, pharmacology, human and animal physiology and allied life sciences. Adding to the difficulty is the fact that most of the chapters are not descriptive or insightful, but present data in a factual manner, without critical analysis of the evidence

The clinicians may find this book too technical with not much practical clinical utility. In summary, although certain chapters stand out as informative and educational, the book as a whole is more suited for translational researchers than clinicians.

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